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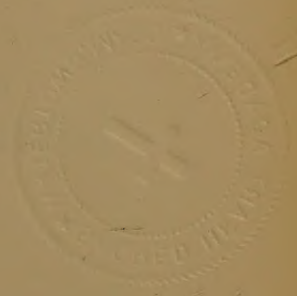
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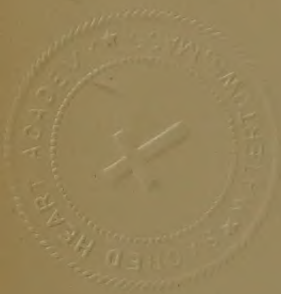
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FUNDAMENTALS OF PEDAGOGY



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FUNDAMENTALS OF PEDAGOGY

A TEXTBOOK FOR CATHOLIC TEACHERS

BY

REV. JAMES HIGGINS

AUTHOR OF "THE STORY EVER NEW," "STORIES OF
GREAT HEROES," ETC.

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THIS OUTLINE OF PEDAGOGICS IS
RESPECTFULLY DEDICATED TO THE
RELIGIOUS TEACHERS OF AMERICA
WHO HAVE DONE AND ARE DOING
SO MUCH FOR GOD AND COUNTRY

SUGGESTIONS FOR THE TEACHER

1. This book merely gives the fundamentals — the foundation, as it were. You can build the superstructure; for “where there’s a will there’s a way.”

2. Utilize as far as possible everything you learn.

3. Make time to answer the questions in “For Further Study.”

4. If the recommended textbooks are not in your library, get them at the public library.

5. While studying, put your heart into the work.

6. Always realize the need of what you are studying.

7. A little thoroughly assimilated is better than twice that amount hastily swallowed.

8. Relate the new to the old.

9. Master the thoughts rather than the words.

10. Thorough learning is usually a slow and painstaking process.

11. Learn how to get the gist of a paragraph or a lesson.

12. As a rule, let reason, and not memory, guide you in study.

13. In all study, exercise and develop your reasoning power.

14. Have a specific purpose in everything you do.

15. Strive for increased power of service.

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INTRODUCTION

At the present time, many religious are preparing for teachers' certificates, while others who have already received certificates are studying in their novitiates and convents. Never before was there so much attention paid to teacher training.

We have in this country a large list of educational works. Many of these were written for public school teachers and for students in our State normal schools, but on account of their materialistic, idealistic, and un-Christian tendencies they are not exactly the texts for postulants, novices, and religious.

When these books were written, the authors doubtless did not give a thought to the thousands of Sisters and Brothers engaged in the work of Catholic education. As a consequence, too many of these texts minimize the important place that religion plays in the life of the ordinary American citizen. They are especially dangerous when they undertake to discuss philosophical and theological subjects. Many of them are unjust to the Catholic Church — not so much by what they say as by what they leave unsaid.

There is undoubtedly a need for suitable educational textbooks for our religious teachers and for Catholic training schools. We need books that will be saturated

with the theory of life proposed by the Great Teacher. We need texts that will show that "man liveth not by bread alone, but by every word that proceedeth from the mouth of God." We need educational treatises that will take into account the fact that we are created to know, love, and serve God in this world, so as to be happy with Him forever in the next. We need, in a word, books that will help us to think God's thoughts as well as to do His holy will.

In order to contribute the least mite to the cause of Catholic education, this textbook, "Fundamentals of Pedagogy," is published. It aims to give in clear and simple language the basal thoughts on the different divisions of education. Around these germ-truths, the ordinary teacher will find it possible to group other educational facts that are related to the main subject.

If this book renders the least assistance to the zealous religious now engaged in the grand work of Catholic education, the author will be more than repaid for the years spent in its preparation.

FUNDAMENTALS OF PEDAGOGY

FUNDAMENTALS OF PEDAGOGY

I

A PRACTICAL PROBLEM

SOME years ago, while attending a course of lectures on "The Art of Teaching," we heard a distinguished professor say, "You can never do a thing well, until you know precisely what the thing is that you have to do."

For teachers, especially, there is a world of meaning in the foregoing quotation. The more one thinks about it, so much the more does the truth of it appeal to him. Let us exemplify.

Supposing some wealthy patron asked you to carve a statue of Las Casas, what, think you, would be your response? You would naturally say, "I am not a sculptor, and what is more I know nothing about the appearance of Las Casas. I cannot carve the statue."

Supposing, however, that the gentleman insisted that you should do the work, that you could take your own time, and that he would be willing to give you whatever compensation you asked. Supposing, furthermore, that your superior wished you to carve the statue, how would you set about it?

Would you not go into a sculptor's studio and learn the art of carving? Would you not spend months and

years in preparation for this special work? Would you not procure as many pictures of Las Casas as you possibly could, so as to study the external characteristics of the man? Would you not become acquainted with the life of the missionary? You would naturally find out *the thing that you have to do, and how to do it.*

There is a close similarity between the work of a sculptor and that of a teacher. The sculptor develops cold, lifeless marble, while the teacher develops all the powers or faculties of human beings. The work which the latter accomplishes is far more important and far-reaching than that of the former; for the costliest marble is not to be compared with the least of God's creatures.

If the sculptor finds it necessary to spend years learning the carver's art before he attempts a serious piece of work, is it not more necessary for the teacher to master the science and the art of teaching before she undertakes to lead children in the pathway of education?

In every art, science, and industry, there is at the present time a consistent effort to acquire the most efficient way of doing things. As a consequence, individuals are giving more time and attention to serious study along these lines. Should the zealous and progressive teacher be behind in this matter?

FOR FURTHER STUDY

1. What is the precise purpose of this chapter?
2. Recall some experience that exemplifies the professor's saying.

3. What do you understand by "academic" and "professional" training for teachers?
4. Why is teaching the most difficult of all professions?
5. Trace the history of teacher training institutions in the United States.
6. Compare the preparation of the teacher with that of the other professions, such as a doctor, a lawyer, or a priest.

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- "The Ideal Teacher," by Palmer.
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II

PEDAGOGY

What It Means. Were you to read the prospectus of some of the leading educational institutions of the country, you would find the courses in education under the title "Pedagogy," or "Pedagogics." Were you then to consult Webster's International Dictionary, you would find these words defined as the "science or art of teaching," "principles of teaching," and "education."

In the wider acceptance of the term, pedagogy embraces the theory and the practice of teaching as a profession. This, in brief, includes the history of education, the principles of education, methods of teaching, discipline, the organization and management of schools, psychology, the educative process, ethics, etc.

What It Embraces. Other meanings have been given to this word, but for our purpose the science of pedagogics will stand for the professional knowledge which every progressive and efficient teacher should possess. He should know what education is, and the best method of imparting it. He should know the child's mind and the process by which it is developed. He should be able to apply the fundamental educational principles upon which true education rests. He should know how to act as a guide and a leader to the children. He should know how

to discipline the untutored pupils of his class. He should be acquainted with the best means of classifying children, and of suiting the curriculum to their needs.

Its Original Meaning. It is well to bear in mind that the word "pedagogy" has not always had its present meaning. Like many other words of our language, it has in the course of centuries acquired a new signification. Pedagogy, as you doubtless know, is derived from two Greek words, *paidos* meaning a child, and *agein*, to lead. In ancient times, a Greek slave was accustomed to lead his master's children to school, to take care of them during the school session, and to bring them home from school. Thus it happened that the slave was called a pedagogue, — a title that did not then call forth much esteem. There was reason for this. The slave or pedagogue's work was of the lowest type. It required but little mentality.

For hundreds of years, pedagogy had a rather limited use. It remained for the great educators and scholars of Germany to introduce it gradually to the reading public. Shortly after the Renaissance, it came to mean the study of the educative process. Governesses, parents, and teachers soon began to take an interest in it. As yet, however, it was not regarded as an important science and was limited chiefly to elementary education.

The Present-day Tendency. In the course of time, however, when the science and the art of teaching were better organized, pedagogy naturally embraced a richer content and assumed a higher standing in the commu-

nity. The rise of normal schools and teachers' colleges gave additional impetus to its study. All teachers and professors worthy of the name soon realized the importance and the necessity of the subject. The foremost universities of our country conferred the degrees of Bachelor of Pedagogy, Master of Pedagogy, and Doctor of Pedagogy.

Within recent years, there has been a growing tendency to use the word "education" instead of "pedagogy." Whether this movement is a step in the right direction, it is hard to decide at the present time. Some feel that it has a tendency to confuse the precise meaning of education. For this reason, we desire to use the word "pedagogy" to signify the science and the art of teaching.

FOR FURTHER STUDY

1. Trace the historical development of the word "pedagogy."
2. What objectionable meaning has the word "pedagogue" to-day?
3. Do you think that the word "education" should be substituted for pedagogy?
4. Show that Herbart was the first to elevate pedagogy to the dignity of a science.

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III

WHAT IS EDUCATION?

An Oft-attempted Task. From time immemorial, educators have tried to formulate a definition of education that would satisfy all men. For this reason, various and surprising are the meanings that have been given to the word. One educator in defining education thinks merely of the practical side of the work; another has the religious or the patriotic purpose in view; another views it as a means of developing the powers or capabilities of man; and still another regards it as the promoter of social efficiency or right living. To exemplify, let us give a few of the many definitions of education.

Types of Definitions. "The purpose of education is to give the body and the soul all the beauty and all the perfection of which they are capable." — Plato.

According to Cicero, the purpose of education was "to honor and strengthen the State, that her sons and daughters may become the rulers of the world."

"The office of education is to correct the evil tendencies of the child." — Seneca.

"The end of education is to grow into the likeness of God." — Origen.

"The foundation of all true education is the Christian life and example." — St. Chrysostom.

"Education is the process by which one mind forms another mind, and one heart another heart." — Jules Simon.

"Education is the harmonious and equable evolution of the human faculties." — Stein.

"Education is the culture which each generation purposely gives to those who are to be its successors." — Mill.

"Education is the preparation for complete living." — Spencer.

"Education is the influence of one person upon another." — Scudder.

"Education must mean a gradual adjustment to the spiritual possessions of the race." — Butler.

"Education is the harmonious development of all the powers of man." — Seeley.

"Education is that form of social activity whereby, under the direction of mature minds and by the use of adequate means, the physical, intellectual, and moral powers of the immature being are so developed as to prepare him for the accomplishment of his life work here, and for the attainment of his eternal destiny." — Pace.

Our Definition. These definitions tell us plainly the viewpoint of their authors. They help to show us the different angles from which education may be considered. They give us a more complete view of the subject, even though most of them are far from complete in themselves.

How then shall education be defined? Shall we take one of the foregoing, or shall we formulate one?

For the sake of simplicity and clearness, we will say that "Education is the harmonious development of the physical, the mental, the æsthetic, and the religious powers of man to prepare him for right living in this world so that he may attain the end for which he was created."

The Definition Explained. The harmonious development of all the powers of man does not mean that each element of his nature must receive the same amount of attention and education. Nature did not intend each of us to be equal. Our endowments are not the same at any stage. Some are gifted in one branch of the curriculum and some in another. What then does the harmonious development signify? It means that the physical, the mental, the æsthetic, and the religious powers of the child must be developed in such a way as to produce the most perfect type of manhood and womanhood. The four elements must be in harmony so as to form men and women of character.

The Physical Development. It is an undoubted fact that the training of the physical nature of the pupils has not always received the attention and the consideration that it richly deserves. Some educators have held that physical culture was not precisely the work of the school, but rather the business of the parents and the State. We readily admit that fathers and mothers have a duty to bring up their offspring as healthy human beings. We will go further and say that they should have a knowledge of nursing, feeding, clothing, and the general hygienic

regulations. But what of it? It does not prove that the school should not be deeply interested in the physical growth and welfare of the children. Such erroneous views are responsible for the deplorable condition of affairs that existed among the young men of England during the great World War. It was the neglected health-training of the young that caused the English Prime Minister to say at that time, "Never again shall it be said that England neglected the welfare of her young men until they were needed for the grim business of war." Were not equally deplorable conditions of health found among some of the young men of our own country? Did not the results of numerous investigations along physical lines convince the educators and statesmen of our country that a health crusade in education was almost absolutely necessary? We must have a plan of health education in all our schools. Physical training along sensible lines for our boys and girls is essential. The youth of our land should have sound bodies to be the dwelling-places of sound and cultivated minds.

The Mental Development. While there has been in the past some controversy about the necessity of physical training in our schools, there is, however, no dissenting voice regarding the mental development of the pupils. The questions still remain: "Are our schools doing everything in their power to promote the intellectual ability of the children? Could we not find better and more efficient ways of teaching the youth of our country how to think logically? Might we not be stressing too much

the informational and the practical or industrial element of education?" Questions like these are food for serious thought. They should inspire us to do all in our power to develop more and more the thinking faculty of the children. Our country and our church need men and women who can think for themselves — citizens who can cast an intelligent vote.

The Æsthetic Development. We have all met men and women who did not see the necessity for training the æsthetic nature of man. We have heard some business men and others say that it was a waste of time. Nevertheless, we insist that all American children have a right to be acquainted with and to enjoy the true, the beautiful, and the good. It makes no difference whether they are going to be drawers of water or hewers of wood. It is their inheritance. It is their birthright. The need of developing æsthetically the youth of our vast country will always remain an important element of education. It is especially marked where the spirit of industrialism and capitalism seems to be in the bones and marrow of the people.

The growing generation need pleasure and recreation. Teach them to see the beauties of nature all around them. Help them to appreciate the sublime handiworks of God. John Fiske has said truly, "This earth, the fair home of man, was placed in the center of a universe where all things were ordained for his sole behoof; the sun to give him light and warmth, the stars in their courses to preside over his strangely checkered destinies, the winds to

blow, the floods to rise, or the fiend of pestilence to stalk abroad over the land — all for the blessing, or the warning, or the chiding of the chief among God's creatures, Man."

In addition to this, our children should have an opportunity to become acquainted with and to appreciate the great masterpieces of painting and sculpture; they should be filled with a desire to visit our great museums of art; they should have a real love for the sublime music of men like Mozart, Rossini, and Verdi; they should occasionally be given an opportunity to see and to hear the great artists of our age; they should be counseled to read the great masterpieces of literature. Thus may we help them to appreciate the true, the beautiful, and the good. Thus shall we aid in developing their æsthetic nature.

The Religious Development. The last and the most important element in the training of the child is his religious inheritance. Man is naturally a religious being. He yearns for communion with God. In life, he feels the necessity of the Supreme Being. No fair-minded man can deny the influence of religion in this world. All through the ages of the past the religious cravings of the people were heard. For more than seventeen hundred years our forefathers were guided by the ideals and principles of the Christian religion.

Discussing this matter in "Catholic Education," the Rev. J. A. Burns, C.S.C., Ph.D., very appropriately said, "Religious knowledge is the most important for the

pupil, because above all we are creatures of God, and are therefore bound to worship and obey Him as our Creator. Our duties to God stand before all other duties; and the knowledge and worship of God must ever be first among the obligations arising in the dawning intelligence of the child. But it is impossible for the child to acquire a due knowledge of God and of his obligations toward Him in a few lessons, or within a few weeks or months. Time is needed as with all other branches of knowledge. Progress can be made only step by step. Hence, the work of teaching religion should occupy the place of first importance in the education of the child, and should, as far as possible, be continuous. These conditions can be realized, in the case of the majority of children, only in the regular daily school."

During the eighteenth and the nineteenth centuries, the Christian influence in public education has gradually grown less, until to-day the religious element has been banished entirely from the public schools of some countries. This, indeed, is a sad condition of affairs.

To perpetuate and to foster the religious inheritance of the past, the members of the Catholic Church in our country have taken upon themselves a double burden: with truly generous hearts, they willingly contribute to the support of the public schools as well as the support of the parish schools. Let it be fully understood that Catholics are not enemies of the public schools. Like other American citizens, do they not pay their quota for the support of these schools, and do they not vote for

the men and women who are elected to run them? Catholics support parish schools for the simple reason that the public schools cannot give their children the religious training that they consider most necessary; for with the immortal Washington they believe that the religious man or woman is the best type of citizen. Coming down to our own day, is it not true that men like Nicholas Murray Butler say that the religious element of education is essential? Here are his words: "It is enough to point out that the religious element of human culture is essential, and that by some effective agency it must be presented to every child whose education aims at completeness and proportion."

Agencies of Education. Viewing education in its most comprehensive meaning, we may say that there are at least five agencies that help to form aright the character of man: the *home*, the *school*, the *vocation*, the *State*, and the *Church*. Each of these agencies, consciously or unconsciously, has an educative influence on every person, but its value as a source of education depends in a great measure on environment and circumstances.

Some children are blessed with good homes, others are brought up with practically no home life. Some pupils have the best schools in the land, while others attend parodies on a school where the teacher sometimes has little or no professional knowledge. Moreover, the work in which a boy engages after leaving school is more or less a source of education. The life of a reporter has more educational value than that of a teamster.

The State teaches the lesson of justice to all. It tells us that man has duties toward the State in return for the different privileges that he enjoys.

The Church explains man's relationship to God and to his fellow man, and supplies him with a rule of life in accord with the teaching of Jesus Christ.

Education in a Limited Sense. In the narrow acceptation of the word, education may be defined as the "influence exerted by the school on the individual." It begins when the child enters the kindergarten and ends when he leaves the school, the college, or the university. It is this aspect of the subject that will be treated in the following pages. In this sense, education has a *history*, an *aim*, a *practice*, and a *philosophy*.

History. The history of education tells us what education has been in the past. It acquaints us with the educational theories and practices of civilized nations. It makes known the problems that educators have tried to solve in each generation. It introduces the student to the great teachers of all ages, and informs him what each of them has done to further the cause of education.

Aim. The aim of education gives us a clear idea as to what we are trying to do with the children in our schools. Without a definite aim or ideal, a teacher can never do efficient work, nor can she be a judge of the best method of leading a child along the pathway of educational endeavor. Important as this matter is, there are few things that receive more attention in theory and less in practice than the aim or purpose of education.

Practice. The practice of education tells us how the body, the mind, and the soul ought to be developed. It is a question of method or the right way of doing a thing. To master this important aspect of education, a knowledge of biology, physiology, psychology, logic, æsthetics, ethics, and sociology is necessary. The practice of education has also to do with the mechanical side of the educative process; how to organize a school or a school system, how to manage a school, and how to supervise it.

Philosophy. The philosophy of education reasons about the conflicting theories of educational experts. It places before us the injurious character of an incomplete or one-sided system of training. It shows us why we should follow those principles of education that have stood the test of time. It tends to make us give a reason for everything we do in the educative process.

Other Viewpoints. If we desire to go a little deeper into the subject, we may consider education from its biological, its physiological, its sociological, and its psychological aspect.

Biology tells us about the life of those whom we have to educate; physiology gives us an insight into the organism of the body which is so intimately connected with the mind. Sociology tells us the kind of citizen that is needed to perpetuate the ideals of our country. Psychology tells us about the educative process by which pupils are trained and their characters formed.

Education an Abstract Matter. From what has been said, it is evident that education is an abstract term; that

is, that it does not exist by itself. It has its existence in the person to be educated. It can then be readily seen that the nature of education depends principally on the nature of the one to be educated.

We know very well that the persons to be educated are creatures composed of a body and a soul, and made to the image and likeness of God. To educate a child, then, means to develop naturally and harmoniously all the powers and capabilities of the body and the soul so that they may function in this world and help him to attain the end for which he was created.

Education Is a Unit. One hears very much nowadays about physical education, mental education, æsthetic education, and religious education. These are merely fractional parts of a whole. There is no clear-cut division between them. They are used principally by educators. In practice, however, education is a unit. Everything the teacher does and everything the pupils do should lead to one end, — the harmonious development of all the God-given faculties of a human being. Nothing short of this will give the pupils a complete education.

FOR FURTHER STUDY

1. Write a brief account of the changing ideals of education.
2. Be prepared to discuss the "pouring in" and the "drawing out" process.
3. Show that education is essential to complete living.
4. What aspect of education has been stressed in our country since the World War?

5. What is the most important element in present-day education?
6. Write a short paper proving that education is really a unit.
7. Do you think that the importance of æsthetic education has yet received the attention it deserves?

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IV

THE AIM OF EDUCATION

1. IDEALS OF THE ANCIENTS

The Dawning of Education. If we read the history of the past, we shall find that education has been influenced by the needs of the people, by the spirit of the age, by the state of civilization, and by the religious yearnings of mankind.

Among the earliest inhabitants of the world, we find education in its simplest form. There were no particular subjects to be studied, or no special means of imparting instruction. The method unconsciously used was simple imitation — that is, the child naturally imitated the action of its parents. The life of primitive men and women was chiefly engaged in acquiring means to satisfy the needs of the body, and in winning the goodwill of the Supreme Being or beings. The children learned as best they could how to secure food, shelter, and clothing, and to worship the Deity or the deities of their race. You see then that even in the dim past the people were not satisfied with purely material things. They felt the need of a supernatural spirit.

The first real educational institution was the family. Here the parents did the work of the teacher. In the

course of time, we find a division of labor. The boys were taught warfare and the chase; the girls were instructed how to prepare food, to make clothing, and even to erect places of shelter. This division of labor became more and more precise as the family became more and more organized.

China. Among the Chinese, the aim of education was to preserve the customs and traditions of their ancestors. Their education was purely local. It had no interest outside the confines of China. It cultivated the memory to the neglect of the thinking faculty. It was prompted by motives of fear rather than by love of study. It took into consideration only the male sex. The girls and the young women were allowed to go through life without any special training.

India. The early education of India had for its purpose the introduction and the perpetuation of the caste system. It was distinctly religious in its appeal. Like Chinese education, it paid too much attention to the cultivation of the memory. Servants and girls were excluded from its benefits. In crudely-built sheds, we shall not call them schools, each of the different castes was taught separately.

Egypt. The caste system also existed in Egypt. The privileged classes were the priests and the soldiers. In the unprivileged class we find the farmer, the tradesman, and the common laborer. Slaves had no standing in the community. The education was suited to the different castes and was of a religious nature.

Greece. The inhabitants of ancient Greece sought chiefly to develop the physical well-being of the young, so as to make them a race of warriors and statesmen. This was carried to such an extent that sickly infants were abandoned to die of neglect. We are told that in Sparta all newly-born children were inspected by officials: if they were weaklings, they were put to death.

The early education of the Greeks aimed to produce men of action — warriors like Achilles endowed with courage and bravery. It emphasized the fact that citizens had duties to the State, but had little to say of man's duties to his fellow man and to his Creator. Many of the Greeks, especially the poorer class, were excluded from its benefits.

In the course of time, the educational ideal of these people became twofold. It sought to train the youth of the land to be both men of action and men of wisdom. The type of citizen must give evidence of bravery and wisdom. In all this training, we readily see that man was educated for the State but not for humanity and God. He was prepared for the arts of war but not for the arts of peace.

Rome. The ancient Romans in common with the people of Greece believed that weak and sickly children had no right to live. The chief aim of their education appears to have been to produce a race of invincible warriors who would preserve intact the Roman nation. To their way of thinking, our duties to country were more important than our duties to the Supreme Being. With

the greatest emphasis, they instilled respect for the law and taught obedience to parental and civil authority. Unlike other ancient peoples, they honored the home and the mother who presided therein. Unfortunately, however, their education tended to help the classes rather than the masses. It prepared the youth for the practical things of life and the acquirement of wealth, but did not give enough attention to the development of the intellectual and the religious powers of man.

Palestine. The education of the ancient Jewish people was essentially domestic and religious. It aimed to attain the ideal traced by God Himself in these words, "You shall be holy, for I the Lord your God am holy." The father at first trained the young in the proper way of doing things. But when the Jewish State reached a higher state of organization, a special priesthood sprung into being for a distinctly educational purpose. In their instruction, the Jewish priests gave special attention to the rites and ceremonies of the law. History was taught as a means of stimulating patriotism, but religion was the foundation on which their schools were built. As a result of the type of education given in the Schools of the Prophets and the Schools of the Rabbis, the Jewish nation soon produced some of the greatest historians and poets of the world.

2. THE CHRISTIAN IDEAL

The Great Teacher. It remained for Jesus Christ, the Light of the World, to introduce a real religious type

of education. This was in many ways opposed to the Greek and the Roman ideas. The Saviour conceded that all men had duties toward the State, but He insisted that they owed a higher allegiance to the Creator. According to His teaching, all men were created equal, and woman was given the honor and the respect due to the queen of the home. While the Redeemer taught the civic virtues of the Greeks and the Romans, He stressed especially the virtue of love and charity for our fellow men.

The newness of many of the Great Teacher's doctrines was naturally a serious obstacle to their progress. In addition to this, the followers of Christ were few in number and had a very hard time for the first three centuries. The pagan government of Rome did not look with favor on the new religion. Persecution after persecution retarded the spread of Christianity. For these and other reasons, the type of education introduced by the Saviour did not at first spread very rapidly. Even when Constantine favored the Christians other difficulties appeared on the scene. The early Christians had no literature of their own, and they were intensely opposed to the use of pagan literature.

The Work of Christian Teachers. For hundreds of years after the advent of the Saviour, the work of Christian education was in the hands of the Catholic Church. During this time, it is natural to suppose that the aim of education was to help the people to save their souls. Though the religious aspect of education was stressed, the phys-

ical, the mental, and the æsthetic powers of the individual were developed in accordance with the progress and advancement of the age.

In the early Church, there grew up the Catechumenal Schools, the Catechetical Schools, and the Cathedral Schools. The teachers in these were the priests and ministers of the Church. These schools in turn were superseded by the great monastic and scholastic schools that were for centuries the depositories of literature, learning, and religion.

Not "Dark Ages." It has been the fashion for some writers and educators to christen the first thirteen or fourteen centuries of the Christian era, the "Dark Ages." But when we remember the many obstacles that Christian education had to encounter, the intense prejudice that had to be set aside, the great changes that were introduced, and the limited means for educational purposes, we are actually astounded at the results attained. Did not Europe boast of eighty universities before the so-called Reformation? The following universities were founded before that period: Paris, Bologna, Oxford, Cambridge, St. Andrews, Salamanca, Valladolid, Salerno, Rome, Pavia, Pisa, Naples, Florence, Siena, Prague, Vienna, Heidelberg, Cologne, Erfurt, Würzburg, Leipsic, Rostock, Greifswald, Tübingen, Mainz, Toulouse, Orleans, Cahors, Caen, Poitiers, Nantes, Upsala, Copenhagen, etc., etc.

The Renaissance Period. During the early centuries of the Christian era, and in fact during the period of the Middle Ages, the pagan classical literature of both Greece

and Rome was somewhat neglected in the institutions of learning. Nevertheless, there were occasional scholars who advocated the greater use of Grecian and Roman literature. This came to pass toward the close of the fourteenth century and the beginning of the fifteenth. It is commonly known as the period of the Renaissance, that is, the new birth or the regeneration of the world.

Italy was the first country to revive the study of the Latin and the Greek classics. Its enthusiasm soon attracted the scholars and educators of other European countries. The Popes of Rome gave every encouragement to the movement by gathering about them humanists of the best type. The invention of the printing press helped the cause materially. Thousands of books and pamphlets were printed in Italy, thereby enabling students and scholars to become acquainted with the literature of Rome and Greece.

In the course of time this revival of the ancient classics spread throughout Europe. As a result, the courses of study in the higher institutions of learning were changed, and some of the customs of pagan antiquity crept into the lives of the people. It was during this period of our history that the so-called Protestant Reformation came into existence.

A Period of Doubt. After the Renaissance and the so-called Protestant Reformation, the aims of education gradually changed.

According to Comenius, the purpose of education was to enable the child to attain eternal happiness with God.

Francke believed that children were naturally bad, and that the aim of education should be to uproot the evil and to plant the good.

Rousseau went to the opposite extreme when he said, "Everything is good when it comes from the hands of God; everything degenerates in the hands of men."

Locke would have education work for "a sane mind in a sound body."

Spencer desired that education should "prepare for complete living."

For two or three centuries after the Renaissance, the trend of education had been to magnify inordinately the importance of the physical and the intellectual development of man at the expense of his religious training.

"Train the mind, awaken the mental activities, or stimulate and direct the intellectual powers," has been the slogan of many educators during the past century.

What the Pilgrims and the Puritans Thought. How different were the views of the early colonists of this country regarding the purpose of education! The Pilgrims and the Puritans asserted with truth that "to omit the religious training of the children is to make education dangerous."

These are some of the conceptions of education that have been held in the past. The aim of education seems to change very frequently. We must not let this fact bother or confuse us. On the contrary, it should help us to get a more comprehensive view of the subject.

Present-day Aims. At the present time, the following aims are more or less prevalent: "The harmonious development of all the powers and capabilities of man," "to acquire the spiritual development of the race," "to inculcate in the individual such habits of thought and of action as will fit him for his environment," "to bring about a harmonious adjustment between the individual and society," "to adjust one to his environment," and "to prepare the pupils for complete living."

In these and many other aims of present-day education, there is a certain lack of definiteness, and some particular view of education is stressed. This has given rise to the almost innumerable schemes, plans, and methods of education that are prevalent to-day.

The Aim of the Church. From what has been said, it is evident that there is considerable controversy as to the precise aim of education. Many of the prominent leaders of educational thought have formulated special aims of their own. The members of the Catholic Church alone have a common aim. They desire to so prepare the body, the mind, and the soul of the pupils that here on earth they may glorify God by upright and honorable lives, and, in the next world, attain the end for which they were created.

FOR FURTHER STUDY

1. Why do educators say that the method of education and the curriculum depend on the aim of education?
2. Discuss the "bread-and-butter" and the "cultural" aims.

3. What is to be said about the "character formation" aim of education?
4. Show that the education of the Middle Ages took into account the physical development of the pupils.
5. What is to be said regarding the "knowledge" aim of education?
6. What studies are most helpful in attaining the æsthetic and the religious aim of education?

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V

THE BODY

Nervous System. We have seen that every human being is made up of a material body and a spiritual soul, and that both have to be taken into account in any complete system of education. To develop successfully the body and the soul, we must know something about the fundamental facts of both. That being so, we will now look into the nature of the body in as far as it has to do with the educative process.

Since all educational effort is intimately connected with the nervous system, teachers should have a clear conception of the part which this system plays in the work of education.

All the nervous tissue in the body, whether in the nerves or in the nerve centers, forms a single connected system. The sense organs, though not reckoned as a part of the nervous system, are connected with the sensory or afferent nerves. The muscles and many glands are connected with the motor or efferent nerves.

Afferent and Efferent Nerves. The *afferent* nerves are those that carry the nerve impulse to the brain; and the *efferent* nerves are those by which the brain communicates with the outside world. The sense organs that act on the afferent nerves are sometimes called *receptors*;

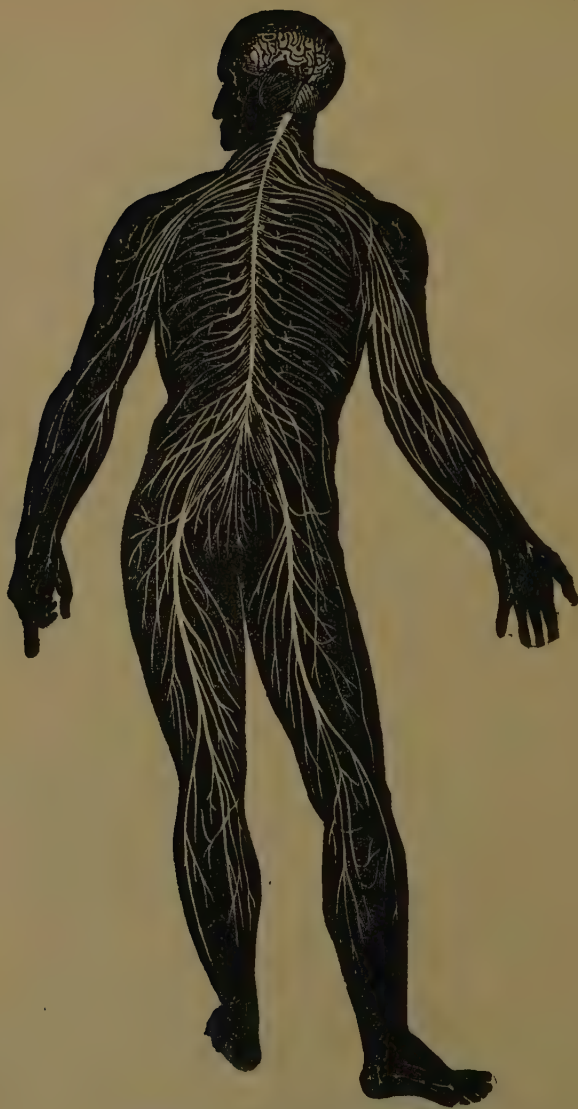


DIAGRAM ILLUSTRATING THE GENERAL ARRANGEMENT OF THE
NERVOUS SYSTEM.

while the muscles and glands which help the efferent nerves are called *effectors*.

From the brain and the spinal cord, nerves ramify to all parts of the body. Bear in mind, too, that the brain and the cord running down the back within the spine are connected with each other through a hole in the base of the skull. Perhaps it would be more correct to say that the brain is a continuation of the spinal cord. We now can see how the sense organs send their messages or stimuli to the brain.

The Brain. The brain, inclosed in the skull, consists of the *brain-stem*, the *cerebrum*, and the *cerebellum*. (A well-illustrated physiology will help the reader to get a more definite idea of the various parts of the nervous system.)

The brain-stem, a continuation of the spinal cord, lies along the floor of the skull from back to front. The lower portion, next to the cord, is called the medulla; in front of this is the pons, the midbrain, the interbrain, and the endbrain or cerebrum.

The nerves of the head issue from the brain-stem; the nerve to the nose from the endbrain; that to the eye from the interbrain; those to the muscles of the eyeball chiefly from the midbrain; that to the skin of the face from the pons; those to the ear, to the throat, and to the rear of the mouth from the medulla. The medulla, too, receives the nerve which supplies the heart, the lungs, and the stomach. You can readily see that the medulla is an extremely vital part.

The cerebrum or endbrain is almost separated into two hemispheres. They are, however, joined at the base and are also connected by a large bundle of nerves.



SIDE VIEW OF BRAIN AND UPPER PART OF SPINAL CORD—*B*, bodies of vertebræ, *C*, convolutions of the right cerebral hemisphere, *Cb*, cerebellum, *M. Ob.*, medulla oblongata, *N*, spinal cord with spinal nerves, *Sp*, spinous process of vertebræ.

The surface of the cerebrum is spoken of as divided into the frontal, the parietal, the occipital, and the temporal lobes. The frontal and the parietal lobes are separated by the central fissure (or the fissure of Rolando); the

frontal and the temporal lobes by the lateral fissure (or the fissure of Sylvius). There are many minor fissures subdividing each lobe into convolutions or gyres.

Microscopic study of the nerves shows them to be bundles of fibers running parallel to each other, like wires in a telephone cable.

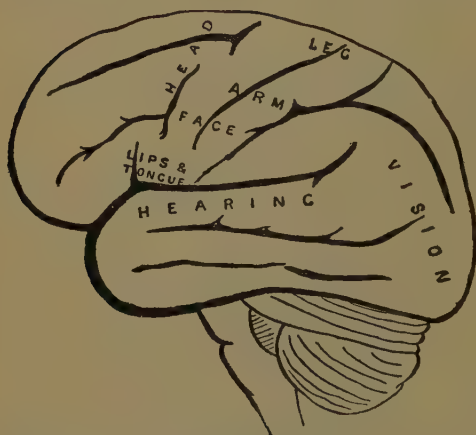
The primary function of the nervous system is to conduct something in the nature of a message or stimulus capable of arousing activity in the organs to which the nerves run. The message carried is called a "nerve impulse."

Localization of Brain Functions. As yet we have but an imperfect knowledge of the localization of the brain functions. From what we know, the probability is strong that every mental activity involves a corresponding physical activity. We know for instance that the motor area is located on each side of the fissure of Rolando; that the region above the fissure of Sylvius is the speech center; that hearing is located in the temporal lobe; and that sight comes from the occipital region.

These facts have been verified by several means, the most convincing of which is that when a given region of the brain is damaged the corresponding mental function disappears; for example, if the temporal lobe of the brain is injured the person as a rule cannot hear.

The Weight of the Brain. It is a well-known fact that a man's brain weighs nearly three times as much as that of any other animal of like size. From this fact, some have inferred that the weight of the brain indicates the

amount of intelligence. This, however, is not so as regards human beings. The man with the large head is not



SIDE VIEW OF BRAIN, SHOWING LOCALIZATION OF FUNCTIONS.

always the most intelligent. Physiologists furthermore tell us that the weight of the male brain is generally heavier than that of the female; but we know thousands of girls and women who have more intelligence than many boys and men. Moreover, if

we judge the male and the female according to the weight of the body of each, we will find that the female brain is proportionately heavier than that of the male.

Development of the Nervous System. The nervous system of the child begins to develop at the very inception of life. How few there are that advert, or pay attention, to this fact! Yet the nervous system is a most important part of the human body and has much to do with the education of every child. It is indeed most unfortunate that more parents do not seem to realize the need of properly developing the nervous system of their children. It would help the educator to produce a better

type of citizen, and it would aid the pupils to do more efficient work during their years at school.

Though the parents should undoubtedly be the first to help in the developing of the nervous system of the children, the school, however, can, and ought, to do its share. It can protect the pupils from undue strain and overwork in the classrooms, and it can supply the necessary stimuli for the proper functioning of the nervous system.

Teachers should always be on the alert for the first symptoms of fatigue, for they are a sure sign that the nervous system has been overtaxed. In the first stages of fatigue, a change of work is oftentimes all that is necessary to bring relief; but in the worst stages, rest and sleep are the chief means of restoring the pupil to his normal condition.

In this age of specialization and progress, it is necessary that the teacher should have a knowledge of the functions of the nervous system. It will help her to diagnose correctly many of the strange manifestations of the pupils and assist her in treating such abnormal children in an efficient manner.

FOR FURTHER STUDY

1. Discuss the relationship of the nervous system to efficient study.
2. Show the intimate connection between fatigue and the nervous system.
3. Show the importance of a study of the brain as regards education.

4. Recall some of the causes that bring about disease of the brain.

5. Why is it most important that the pupils should enjoy good health?

6. Are the children of the present day more nervous than those of a generation ago? What are the causes?

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VI

THE SOUL

Why This Omission? In many texts on psychology, there is scarcely a mention of the human soul. From reading these books, one would imagine that there were no such thing. The authors, as a rule, speak merely of the mind and the body of man. This, however, was not always so. Some of the older texts on educational psychology discussed at length the human soul, and followed more or less closely the teaching of Christian psychologists.

What, you may ask, has given rise to this change? Many causes have doubtless helped to bring it about. The beliefs of many pagan philosophers have been resurrected and thrown into more plausible molds. These have been eagerly imbibed first by the professors of philosophy and then, as a matter of course, by their students. At the present time, the Idealists and the Materialists are laboring most eagerly to cast aside the Catholic philosophy of the human soul—one of the basic doctrines of the Christian religion.

Needed by the Teacher. Every person who teaches in our schools should have some knowledge of the human soul. They should be able to answer the questions that are asked occasionally by the pupils. For this

reason, we will now give a brief account of the Catholic teaching regarding the soul.

What is the soul?

It may be defined as the ultimate internal principle by which we think, feel, and will, and by which our bodies are animated.

Does the soul differ from the mind?

The mind, according to scholastic philosophy, usually denotes the ultimate internal principle as the subject of our conscious states, while the 'soul denotes the source of our vegetative activities as well. The word "soul" then is more comprehensive than the word "mind."

Is the last source of our mental activity a substantial being, that is, do our vital activities proceed from a principle capable of subsisting in itself?

That is just what Catholic psychology teaches and what we as Catholics hold. The human soul must be of necessity something substantial.

What are we to understand by the simplicity of the soul?

When we say that the soul has the attribute of simplicity we mean that the substantial source of thought is distinct from the body and in particular from the brain.

But is the soul of man, though distinct from the brain, intrinsically dependent upon the body, so that it can neither exist nor exercise any function except in conjunction with the body? In other words, are all functions of the soul organic functions?

We answer that rational thought, when carefully analyzed, reveals itself as a mental function essentially superior to sense perception. For the acts of rational thought are spiritual functions; hence their last source and subject must be a spiritual substance. In a word, the spirituality of the soul means that it is not in itself composite, extended, corporeal, or essentially and intrinsically dependent on the body.

We believe that after the death of the body, the soul lives and will go before the judgment seat of God to render an account of its stewardship. To do this, the soul must be able to exist independent of the body.

The soul then is a simple, spiritual, substantial being, or the ultimate internal principle by which we think, feel, and will, and by which our bodies are animated.

Faculties of the Soul. According to Catholic psychology, the soul has certain powers or faculties, that is, principles of action. These are divided into the cognitive and appetitive faculties.

What is the difference between the two? The cognitive faculties are those by which we know things. The appetitive faculties are those by which we strive after or seek something.

Let us exemplify. A teacher is passing by a bookstore. Prompted perhaps by curiosity, she looks in the display window. She sees a textbook on "School Management" that she has for some time desired to have. Suddenly, a wish to possess the book takes possession of her. She stops, walks into the store, and buys it.

By her cognitive faculties she recognized the book as the one for which she had been looking, and by her appetitive faculties she was prompted to purchase it.

A Time-honored Classification. The cognitive faculties are (1) *sensuous and organic*, or (2) *spiritual and inorganic*.

The sensuous and organic faculties are (1) the *external senses* and (2) the *internal senses*.

The external senses are (1) *sight*, (2) *hearing*, (3) *taste*, (4) *smell*, and (5) *touch*.

The internal senses are (1) the *sensuous memory* and (2) the *imagination*.

The spiritual and inorganic powers or faculties are the acts of the intellect: (1) *concept*, (2) *judgment*, (3) *reasoning*.

The appetitive faculties are (1) the *rational will*, which is spiritual and inorganic, and (2) the *sensuous passions*.

FOR FURTHER STUDY

1. Why do so many books on educational subjects fail to mention the soul?

2. Explain the meaning of "material" and "immaterial."

3. Discuss the immortality of the soul.

4. Has not the existence of the soul considerable to do with our aim of education?

5. What is the primary and fundamental difference between man and irrational animals?

6. Is it correct to say that "mind" is synonymous with "soul"? Do you know any Catholic psychologist who does so? What are his reasons?

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VII

THE SENSES

Their Importance. The more we study the process of education in the elementary schools, so much the more clearly do we see the close relationship between sense training and intellectual development. Is it not a fact that the young child gets practically all his knowledge by means of the senses? Even when he enters the first grade, see how the senses of sight, of hearing, of touch, etc., are used in teaching him to read. Each of them brings the child a knowledge of the world about him — a knowledge which cannot be obtained so well in any other way.

Take for example the boy who is blind. Will anything that human beings can do for him make up for the loss of his sight? He may be told of the great, wide, beautiful world that God made, and of the wonderful plants and animals that inhabit it. He may listen to story after story of the beauties of nature, the grand mountain ranges, the placid lakes, the swift-flowing rivers, and the mighty ocean. Nevertheless, he cannot appreciate them so well as the boy who can see them for himself.

Extremists. Some educators, it is true, go to extremes in their insistence on the absolute necessity of sense train-

ing in the work of education. Looking at life from a materialistic point of view, they contend that all our intellectual processes may be said to be engaged in the interpretation and elaboration of the material furnished by the stimulation of the sense organs. With such a view of the subject, Catholics have no sympathy. They always remember that man has a soul as well as a body, and that both have to be considered in the work of education.

Things Accomplished. In recent years, the impetus given to sense training has brought about some good results: (1) it has advocated that all subjects should be taught in as concrete a way as possible; (2) it has brought the child, whenever possible, into contact with the facts; (3) when this is not possible, it has suggested the use of models, charts, pictures, etc.; (4) it has been instrumental in introducing into the curriculum of grammar schools special courses such as object study, nature study, and science.

Lest any one might get a wrong impression of the subject under discussion, it must be understood that sense training does not develop the organ of sense as exercise develops the muscle; that is, it does not attempt to correct or improve such defects as nearsightedness, color-blindness, and deafness, but it does help to enlarge the number of the child's sensory experiences and to increase the child's capacity for sensory discrimination.

The Sense of Touch. The sense of touch includes all those sensations which arise from contact of the skin

with other bodies. Sometimes the stimulation is produced by pressure, and sometimes by a change of temperature. Touch brings to consciousness the difference between hard and soft, fluid and solid, smooth and rough, cold and warm, and all their manifold degrees.

The passive state of being touched must be distinguished from active touching in which the muscular sensation assists, since we exercise a certain resistance to the external pressure. This is increased when the organs of touch, the tips of the fingers, move along over the surface of the object to be touched.

The content of the sensation of touch is conditioned by the touching object and the place of contact upon the skin. The same contact produces a different sensation according as it is exerted on the right or the left arm. A pin prick on the big toe can be distinguished from one on the back.

The hand may be regarded as the real organ of touch. It is furnished with the most delicate sensory nerves. The finger tips have been called the eyes of the sense of touch. With the blind, they take the place of the real eye.

The Sense of Sight. "The eye may be compared to a photographic camera, and the transparent media correspond to the photographic lens. In such a camera, images of objects are thrown upon the ground-glass screen at the back of the box, the interior of which is painted black. In the eye, the camera proper is represented by the eyeball with its choroidal pigment, the screen by the retina,

and the lens by the refracting media. In the case of the camera, the screen is enabled to receive clear images of objects at different distances by an apparatus for focusing. The iris which is capable of allowing more or less light to pass into the eye corresponds with the different sized diaphragms used in the photographic apparatus."

With regard to the foregoing paragraph taken from Kirke's "Handbook of Physiology," pages 727-8, the important things for the student of psychology to remember are: (1) that the physical mechanism of the eye resembles the photographic apparatus, although it is far more complex; (2) that the fibers of the optic nerves leading from the retina of each eye meet at the base of the brain; (3) that these fibers lead to brain cells in the occipital lobes; (4) that the optic nerves carry the retinal change due to light reflected from objects to the brain cells in the occipital lobes.

Just as the photographer has to have sufficient light to take a picture, so the sense of sight has to have light as an external stimulus. For those who wish to go deeper into this matter, the question of intensity of light and color is a most interesting subject.

The Sense of Hearing. The ear and the auditory nerve are the organs that carry to the brain the effect of atmospheric vibrations. The sound waves affect the inner ear, set the auditory nerve in action, and this action is carried to the brain.

Individual ears differ much in their capacity for receiving sound waves. The rates of vibration between

sounds most commonly heard are from thirty to thirty thousand in a second. A rate of vibration lower than sixteen a second does not affect the auditory nerve sufficiently to cause hearing. When the rate exceeds thirty-six thousand a second no sound is heard.

The stimulus then to hearing is sound. From the physical point of view, sound is a movement of the air particles. Sound is received into the outer passage of the ear, conveyed inward by a series of vibrating bodies, and finally produces a movement in the fluid of the cochlea of the internal ear. The cochlea is a hollow tube through the whole length of which is stretched a membrane. The cross fibers of this membrane are arranged like strings on the back board of a piano; they are short at the beginning and gradually increase in length as the membrane continues (bass strings). Each cross fiber carries sensitive cells with which the fibrils of the auditory nerves are connected. A movement of the fluid in the tube excites the cells standing upon particular strings or cross fibers. Only those strings are affected, in a given case, whose vibration corresponds to the sound (outside the ear) which causes the movement of the fluid.

The Sense of Smell. The cavity of the nostrils is lined with a mucous membrane filled with nerves of general sensibility as well as of smell. In order to stimulate the olfactory nerves and arouse a sensation of smell, air containing odorous, gaseous particles must come in contact with the nerves of the mucous membrane. The qualities

of smell are so many and so indefinitely separated that it is useless to attempt a classification. Sensations in our noses are often the compounds of smell, touch, and taste.

The intensity of the odor depends on the number of gaseous molecules which the substance emits and the intensity of affection of the olfactory nerves. Musk is very odorous, as it gives out many molecules, thus affecting a large nervous surface in the nose. Ammonia gives off fewer molecules but they affect the nerves more violently.

The Sense of Taste. In the tongue, there are numerous little cellular bodies called "taste buds." When a soluble substance, like quinine or sugar, is placed on the tongue, these taste buds are affected. This affection stimulates the connecting gustatory nerves which transmit the excitement to the brain, thus causing the sensation of taste. We can easily recognize four sensations, bitter, sweet, sour, salt. The almost numberless sensations shading off from these are products of both smell and touch. "The pleasantness of many sorts of foods is certainly derived from their effect upon the delicate skin of the palate, and is therefore much more a question of touch than of taste."

Sense Training. Years ago, little attention was paid to the education of the senses. Some teachers did not realize the important part played by the senses in the work of education. Suitable exercise of the eye, the ear, and the nose was hardly thought of.

What was then done to develop the sense of seeing? Scarcely anything. How different to-day! Every progressive teacher presents to the eyes all sorts of sensible objects. She realizes that the development of the senses is begun at the cradle and is continued during school life.

The well-informed parent, moreover, looks after the health and integrity of the organs of sense, and strives to preserve them from infirmities which interfere with their normal functioning.

She realizes, in the second place, that each organ of sense should be developed by appropriate exercise, so that it may acquire the greatest possible power and precision.

Thirdly, she understands that while developing the senses, she should also develop those active faculties which coöperate in their exercise.

We must never forget that sense knowledge is the first that the intelligence can acquire. It is the basis of all other knowledge. The tendency of modern pedagogy is to substitute for abstractions, general rules, and lessons learned by heart, sense intuitions or concrete perceptions. The special sense that is utilized in this change is that of sight.

In days gone by, words were transmitted through the ear to the memory. Now many things are presented to the mind through the eyes. This is what is sometimes called the system of object lessons. Children are easily prompted to look at and to observe things. After they have examined several times any object under its differ-

ent phases, they will begin to acquire a disposition to proceed in the same manner, that is, with order and method in all their studies and personal observations.

The Right Kind of Object Teaching. Object teaching, to appeal effectively to the senses and to the activity of the mind, should not be a difficult or prolonged exercise. It is equally necessary that the objects shown should be attractive and interesting to the pupils. The selection of the objects is a matter of considerable moment; and no one but a teacher versed in paidology should attempt to select them.

When the objects have been systematically chosen and carefully graded, the pupils should be led to see not only the different qualities of each of them, but to analyze and observe them from different angles. From this work, the children will accumulate a series of clear images which will be helpful to them in future school work.

Teaching by object is not the only way of appealing through the senses. Writing, drawing, the physical and natural sciences, geography and manual exercises, and to a certain extent every study, tend to develop the senses. Drawing undoubtedly is one of the best developers of the organ of sight. In this work, the child not only sees, but he notes what is seen. Drawing has a real educative value especially for the little ones in the kindergarten and the primary grades.

The exercise of the senses benefits not only each of the organs of the body, but it assists the mind by furnishing

it with innumerable ideas and by cultivating attention and observation. When you have trained the child to examine carefully an apple or a flower, you have begun to form in him the habit of looking at things accurately and of concentrating the mind on a given subject.

The observation of nature and the things of nature should tend to lift the mind of the child from what is material to what is spiritual, from the created to the Creator. A knowledge of God the Father Who made this great, wide, beautiful world of ours should be the birthright of every child.

FOR FURTHER STUDY

1. Name three ways by which we receive information from the external world.
2. Is it necessary to train all the senses to the same extent?
3. Show that the senses are made up of the body and the soul united and forming one principle of action.
4. Explain the difference between the "senses" and the "intellect."
5. Show that a good knowledge of the five senses is necessary for every teacher.
6. Why is sense training such a valuable auxiliary in the work of education?
7. Explain the part played by the senses in primary education.
8. Do children learn more from hearing than from seeing? Why?
9. Show how the cultivation of one sense helps to develop the other senses.

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VIII

THE BODY AND THE MIND

1. THEIR INTIMATE UNION

Physical Culture Necessary. Everyday experience and scientific experiments show that the mind and the body are closely connected, and that the acts of the mind coincide with operations in the body. Experience also proves that by influencing the bodily organs we can make a change in the mental process. We know, furthermore, that excessive intellectual activity has an injurious effect on the body.

We can readily see then why some writers took for the aim of education, "a sane mind in a sound body." Both, it is true, should be harmoniously and naturally developed. If either is below standard, it tends to have an injurious effect on the other. Tired, poorly-nourished, or sickly children cannot do their best work in school. On the other hand, pupils who use their brains too much oftentimes play havoc with their bodies.

On account of the intimate union between the mind and the body, we can readily see why the physical side of man has to be considered in the work of education; for the mental as well as the religious faculties can be developed better in a strong body than in a sickly one.

Physical Education. Physical education has for its object the health and strength of the body. It also tends to render the pupil more skillful in whatever calling he may follow, and to bring him nearer the more perfect form of manhood. In a word, to be in good health, to be strong and robust, to be skillful with the hands, and if we can, to be beautiful in physique, — these are the ends of physical education.

Hygiene and Gymnastics. How are these ends attained? By hygiene and by gymnastics. There are certain precautions to be taken and certain principles to be observed in order to maintain the bodily organs in their best condition. This is the work of hygiene. On the other hand, the body as well as the mind needs activity. This activity is secured by gymnastics.

Hygiene is the art of promoting and preserving health by following a well-known code of regulations which either forbids what is harmful to the body or commends what is healthful. This information is generally found in school physiologies.

The vital organs of the body (the lungs, the heart, the stomach, the liver, the kidneys, and even the skin) are dependent for proper functioning on the exercise of the voluntary muscles. The necessity of physical culture, which gives exercise to the bodily organs, is as you see very important, not only for physical but also for mental development.

School Exercises. The course in physical culture should include *schoolroom exercises* which promote health and

grace in correct standing, walking, sitting down, getting up, talking, breathing, etc.; *playground exercises* which teach the children how to walk, run, jump, leap, etc. These develop the lower limbs. Throwing, lifting, swinging, etc., give agility, skill, and power to the arms. Football, baseball, basket ball, tennis, etc., give exercise for limb and trunk development. The schoolroom exercises are oftentimes supplemented by work in a gymnasium.

The home exercises are oftentimes most helpful. Long walks, running errands, helping in the garden and in the fields, hunting, skating, and the many games of children have a great influence on the proper physical development of the child.

Many things have shown us the necessity of taking care of the body. The revelations which the late World War made have created a profound impression in favor of more physical education in the elementary schools.

2. HOW THE MIND IS STUDIED

Introspection. In studying the body, we dealt with a material thing that we could see, weigh, and measure. The mind, however, is not material. We cannot see, touch, or handle it, because it is spiritual. Yet the mind can be studied. How can it be done?

When the Greek scholar recommended to his hearers, "Know thyself," he realized that the mind can be observed and known. Each person can study the activity of his own mind, but no one else can do so directly. This is done by introspection, that is, by looking in upon our

own consciousness, and by observing what is taking place there. This introspection is not so easy as one would imagine. Some, however, master it without much effort, while others find it very difficult to do so. We can readily realize this, when we understand that to introspect means "to catch oneself unawares in the act of thinking, feeling, or willing."

Observing Bodily Acts. Though we cannot directly study the mind of another person, we can, however, get indirectly some information regarding his intellectual activity. This is done by trying to understand a man's states of consciousness as they are reflected in his bodily acts. A person's face, form, gesture, speech, etc., give us more or less knowledge of the mental states that lie behind the senses; for Phoebe Cary truly says:

"Little children, you must seek
Rather to be good than wise,
For the thoughts you do not speak
Shine out in your cheeks and eyes."

Reading and Reflection. Man has the ability to profit not only by his own experiences but also by the experiences of others. This being so, he can study the mind by reading the findings of other psychologists. These will be found in textbooks on educational psychology and in articles in the educational magazines. The conclusions reached by other investigators will help to clarify and explain many doubtful points, and will increase the student's knowledge of the human mind.

The mind, even though it is spiritual, can be studied then (1) by reading and reflecting on the literature of the subject, (2) by introspection of our mental activities, and (3) by observing the bodily acts of others so as to find out the states of consciousness behind them.

3. ASPECTS OF THE MIND

Knowing, Feeling, Doing. The states of the mind, or states of consciousness, are commonly called mental phenomena. Since these phenomena have a certain duration and a succession of parts, they are also known as intellectual processes or operations. The activities of the mind in perceiving, remembering, and reasoning are mental operations; the activities that experience sorrow, joy, love, hatred, anger, etc., are called feelings or emotions; and those that do something or refrain from doing something are known as operations of the will. To be more precise, we include under feeling all the pleasurable and painful conditions of the soul. Knowing embraces all the mental operations that are involved in getting knowledge. Willing takes in all conscious actions together with efforts to do things.

Different as these aspects of the soul are, they have nevertheless some things in common. Take for example a little girl experiencing the pain of a sprained ankle, another girl studying diligently a lesson in American history, and still another making up her mind to obey the command of the teacher. In each case, there is a certain amount of effort required. They are all operations

of the soul, and they all add to the sum total of our experience.

Helpful to the Teacher. Some one of these three aspects generally predominates in the soul. That means that the other two have to take secondary places. A knowledge of this threefold division is of paramount importance to the teacher, because each of them has to be taken into account in the work of education. It will not do to train merely the intellectual faculties and to disregard the emotional and the volitional ones. True education requires the natural and harmonious development of each of them.

Discrimination and Assimilation. Psychology recognizes certain kinds of knowing, feeling, and willing. But such distinctions are not expected in a book on fundamental pedagogy. They may be found in textbooks on psychology. The most important operation in all varieties of knowing is the seeing of relations between things, such as likeness and unlikeness, agreement and difference. We perceive a rose when we realize how it differs from other flowers, and how it is like the other roses we have seen. The primary functions of the mind then may be said to be *discrimination and assimilation*.

No Two Alike. It is necessary to realize that the psychological power or capacity of different persons varies in certain respects. One child may be more inquisitive than another. He may want to ask questions about everything he sees or touches. Another child may be endowed with more feeling than his classmates. Certain stories

then make a lasting impression on his mind. They bring about the self-activity of his intellect. Still another child may be born with a stronger will to do or not to do certain acts.

These are the facts that every progressive teacher must know if she desires to do efficient work in the classroom. She must know the tendencies and characteristics of each pupil in order to reach him in the most natural and effective way.

4. MENTAL DEVELOPMENT

"Growth" and "Development." In speaking of the body, some educators distinguish between "growth" and "development." "The former," they say, "has to do with the increase in size or bulk, while the latter consists of structural changes." According to this view an organ like the brain may develop long after it has ceased to grow.

By analogy, we may say that the mind grows when its stock of materials increases, and it develops when its materials are changed into higher and more complex forms.

In practice, however, the distinction between growth and development is not always followed. Some educators use these two words as synonyms.

Order of Development. In the development of the mind, a well-marked order is followed. This undoubtedly is one of the most helpful doctrines of modern psychology.

The first step in attaining knowledge begins with sensations.

The sensations are then perceived, — that is perception.

Perception is followed by representative imagination and apperception.

Then comes the formation of concepts, judgments, and reasoning.

Exercise Strengthens Faculty. It must be remembered that these unfoldings of the mind make but one continuous process. They are so intimately united that we cannot realize where one ends and the other begins. However, there is one thing that we do know, and that is that these states in our mental development are strengthened and improved by exercise. Briefly stated this law is, "Exercise strengthens faculty."

Internal and External Factors. Two sets of agencies or factors take part in the development of the mind. These are known as the Internal Factors and the External Factors.

Under the head of the Internal Factors are included all the simple and fundamental capabilities of the mind. Accordingly, they embrace the simple modes of sensibility, the fundamental intellectual functions, and powers of willing. In addition, they include the mind's natural tendency to activity.

The External Factors consist of the Natural Environments and the Social Environments. By natural environments we mean a person's surroundings. The beauties of nature send their messages through the senses to the mind. They are capable of appealing to our feeling, our

knowledge, or to our will. By social environment, we mean the community of which the person is a member. This kind of environment produces a moral influence.

Follow Laws of Mental Growth. The proper training of the child must always be based on a knowledge of the laws of mental growth :

(1) The training must develop adequate stimulation for the faculties of the persons to be educated. It must be adequate — neither more nor less.

(2) It must conform to the natural development of the faculties.

(3) The faculties must be developed not only at the proper moment but also up to the proper point.

(4) The training must be somewhat elastic, adapting itself to the many differences found among pupils.

FOR FURTHER STUDY

1. Are teachers as a rule careful enough about the physical growth of the pupils?

2. How might the physical training in our schools be improved?

3. Is the child's health of more consequence than his intellectual development?

4. How may the pupils' health be safeguarded?

5. Why is the study of the mind most important?

6. What becomes of the mind while we are asleep?

7. When you cannot keep your mind on what you are doing, where does the difficulty lie?

8. How would you explain consciousness to another person?

9. What is the general order of mental development?

10. What agencies serve to develop the mind?
11. What part does heredity play in the development of the intellect?

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IX

CHILD STUDY

Its Meaning. We have spoken so far in a general way about the development of the body and the mind. We now propose to give a brief sketch of the science of child study.

During the past century, a new division of educational psychology was established under the title of child psychology, genetic psychology, child study, or paidology. This useful branch of professional knowledge treats of all the changes that take place in human beings from their birth to their twentieth year. It gives an insight into the natural order of developing both the body and the mind. It tells how the different stages of growth can be modified by various conditions and activities. It makes known the various instincts and characteristics that are prominent each year of school life, and points out the most effective ways of utilizing them in the work of education. In a word, child study tells us what the child is at birth, and gives the general laws by which his body, his mind, and his soul can be harmoniously developed.

A Mistaken Notion. For hundreds of years, the child was regarded as a miniature man. We now know that this is not so. During the past century, it has been discovered that there is a radical difference, both physically

and mentally, between the child and the adult. This piece of information, more than anything else, has given rise to the science of child study.

In the Experimental Stage. Though much time and thought have been spent on experiments and investigations along this line, much more has to be done before we shall have a complete, well-organized body of knowledge. Notwithstanding this fact, it must be admitted that a most encouraging and helpful beginning has been made. Several high-class textbooks dealing with this subject have been published, and numerous experiments and investigations have been, and are being, made. These, in turn, have thrown considerable light on the practices and methods of elementary education — so much so that many courses of study and many educational maxims have been changed.

Strength and Prominence of Instincts. The most striking difference between children and adults is not found in the number of instincts, but in their relative strength and prominence.

Almost from birth, the ordinary child displays a selfish, thoughtless, grasping spirit. He wants everything he sees. He seldom thinks of the rights of others. His thoughts are generally centered upon himself, and he acts as if he were the monarch of all he surveys.

The next noticeable change in the development of the child is the appearance of the "gang" spirit. Though still somewhat bound up in himself, the social instinct of the child prompts him to seek companionship of boys

and girls of his own age. He no longer wishes to be alone. He wants to talk to, and to play with, his chums.

As the child grows a little older, another instinct prompts him to surpass his companions in doing or saying things. Without the least bashfulness, he will try to excel all those around him in running, jumping, singing, etc. All these natural attempts are most helpful in the physical and the mental development of the child, because they are done freely and with a certain amount of excitement and pleasure.

Child Interests. Child study, moreover, informs us that young children are naturally interested in brightly-colored objects, in loud sounds, in moving things, in pets and playthings, and especially in candy and good things to eat.

The early play period is generally succeeded by one in which the children take a special delight in entering into games that require some ability or show physical skill, such as running and jumping, etc. As this particular instinct develops, the children endeavor to do things requiring greater skill, such as building houses, going to the store, playing store, and in general imitating the actions of older persons.

Lack Concentration. Paidology further tells us that children, as a rule, lack steadiness of purpose. They cannot pay strict attention to any one subject for any great length of time. But as they make progress in their studies, there is a gradual development of their power to concentrate.

Looking at the subject from a mental point of view, we may say that the child differs from the adult in regard to his power of perception, his lack of attention, and his ability to reason.

During the first stage of his education, the child gets most of his knowledge through the senses, but as he grows older he depends less and less on the senses and more and more on intellectual activity. He naturally begins to think about things. He examines each object of interest more carefully. In his endeavor to know and understand things, he asks numerous questions. He is not satisfied with confused and imperfect notions. He strives for clear and vivid impressions. Year by year, his power of discrimination and assimilation grows stronger and stronger, and his ability to attend to one thing for a period of time becomes more developed.

The difference between the mental pictures of an adult and those of a child is very marked: the former are more vivid and precise, while the latter are rather hazy and imperfect: one shows the power of concentration while the other evidences a lack of attention.

Images That Appeal. The mental images that appeal most strongly to the mind of the child are those of concrete experiences — those gained through the sense of sight are said to be more vivid and striking than those gained through the other senses. A knowledge of this fact gives the teacher a better idea of the mental pabulum on which school children in the primary grades should be fed so as to educate them efficiently.

According to the most reliable authorities, the child's power of memory increases gradually up to the fifteenth year. This is particularly so in the case of the logical memory which presupposes a certain amount of experiences that younger children scarcely ever possess, but which they will acquire as they grow older and study more.

Can the Child Think? Some psychologists seem to hold that the higher processes of thinking and reasoning are exclusively the possession of the adult mind. The contrary opinion, however, is daily becoming more prevalent. Most educators to-day believe that even school children are capable of doing logical thinking and accurate reasoning. This is why little problems are introduced into the work being done in our elementary schools.

The Child Is a Religious Being. Some paidologists have asserted that the child is not a religious being. What precisely do they mean? Do they wish us to understand that the religious powers of the child do not develop until later in life? We know that the child in his tender years is not able to grasp the profound questions of theology, because he lacks the power of collecting, organizing, and passing judgment on such matters. Nevertheless, he can grasp in a certain way the germ truths of religion if they are presented to him in a picturesque story style. Aye, more, is he not oftentimes deeply interested in the story of the Infant Saviour, His Blessed Mother, St. Joseph, and the saints?

The earliest religious training of children should be of the heart rather than of the head. Any religious instruc-

tion that involves observing and taking part in the feasts and the ceremonies of the Church leaves a lasting impression on the child mind. Take, for example, a Corpus Christi procession, or a Children of Mary procession. These certainly appeal most strongly to children. They teach a lesson that they will never forget.

It is generally agreed that the formation of habit is a most important part of education, and that the best time to do efficient work in this matter is from the age of three to thirteen. These facts alone are sufficient to prove the wisdom of the Church in imparting religious instruction to children in the kindergarten and the primary grades.

The Instincts of Childhood. The various instincts of childhood may be grouped in the following manner:

1. Self-preservative { feeding
fearing
fighting
2. Parental { acts connected with the production of
the young
acts connected with the caring of the
young
3. Social { a tendency to seek companionship — *gregariousness*
a tendency to feel for others — *sympathy*
a tendency to please others — *approbation*
a tendency to compete with others — *rivalry*
a tendency to loyalty and altruism — *generosity*

- 4. Adaptive { play
imitation
curiosity
- 5. Regulative { moral
religious
- 6. Other Instincts { collective
constructive
æsthetic
migratory
rhythmic
expressive

It is the duty of the teacher to utilize all these instincts in furthering the work of education. This is the natural and most efficient way of teaching, because it cannot help but appeal to the children.

Heredity. In addition to what has been said, child study informs us that all the endowments of a child are not hereditary. Some of them are accounted for by the influence of environment.

The general truths of heredity may be thus expressed :

(1) Children generally resemble their parents.

(2) Inheritance is not merely from the father and the mother, but from the two lines of ancestry of both families.

(3) Heredity may often be said to be a general capacity to do a certain thing rather than a specific ability to do it.

(4) When near relatives marry, it is commonly believed that their offspring show signs of mental weakness.

(5) The children of parents of pure blood sometimes show characteristics of remote ancestors.

(6) All hereditary qualities are not apparent at birth.

Divisions of School Life. Paidologists divide the school life of children into different periods. From one to three years, we have the *imitative* and *social* stage; from three to six, the *dramatic individualizing* stage; from six to twelve, the *competitive social* stage; from twelve to eighteen, the *pubertal* period; and from eighteen to twenty-four, the *post pubertal* period.

From the first to the third year is called *infancy*, from the third to the twelfth is called *childhood*, and from the twelfth to the twenty-fourth is called *adolescence*.

FOR FURTHER STUDY

1. What is the best way for any teacher to get a helpful knowledge of child study?

2. Which do you consider the most helpful book on the subject? Why?

3. How would you explain to a number of parents or teachers the usefulness of a knowledge of child study?

4. Enumerate and explain the other names by which child study is known.

5. Why should every teacher know something about heredity?

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X

ACTS OF THE MIND

1. PERCEPTION AND APPERCEPTION

The Mind Perceives. The child begins life with a number of instinctive tendencies to act for its own good. These tendencies produce reactions which may be considered the basis of knowledge.

Besides the instinctive tendencies, there is the natural and social environment of the child. The senses supply him with information from the world about him, the nervous system carries the messages to the brain, and the mind gets its information from the brain. This is an example of what is known as perception: the mind perceives something coming from the external world.

Sensation then informs the mind of what is going on in the outside world and keeps it posted on the conditions of the different parts of the body. Each sense organ is peculiarly adapted to collect a particular kind of information. This in turn is carried through the nervous system to the brain. The mind then perceives the sensation.

The Mind Interprets. So far the message has little or no meaning. It has to be compared and associated with past experiences. If the mind is lacking in these, as in the case of very young children, the sensation has little

or no effect from an educational point of view. But after the mind compares and associates it with past experiences it receives its meaning. It is this mental process of interpreting the messages of sensation that is called apperception.

It is easy to see then that apperception includes more than perception, and that it has much more educational value. A little child may perceive many things without deriving therefrom any benefit. She has perceptions, but no apperceptions.

Apperception then is an act of the mind that secures knowledge from sense-impressions or sensation. Though it is a mental act, it is nevertheless closely connected with the body, that is with the brain, the nervous system, the senses, and external objects.

Apperception may be said to depend (1) on the sensations experienced, (2) on the power of discrimination, and (3) on the reproduction of past experiences.

The Development of Apperception. Can the apperception be developed? It certainly can. This is plainly seen in the case of a child progressing from infancy to childhood. One's ability to perceive accurately and clearly depends on the sense organs, our interest in the subject, and our power of observation. We know very well that the sense of hearing and seeing can be developed, our interest in a subject can be intensified, and our power of observation can grow stronger.

Whenever, then, anything in the world or in school work tends to develop our senses, our interest, and our

power of observation, it is indirectly developing our apperception.

2. MENTAL IMAGES

The Benefit of Mental Images. In explaining the meaning of apperception, we saw that in order to give meaning to the sensations the mind had to compare and associate them with past experiences — that is, images or ideas of things we have already seen, heard, felt, touched, or tasted, of things that we have thought of before, of things we remember. These are the mental images or experiences that give meaning to our sense impressions. If there are no mental images in the mind, our sensations cannot be properly interpreted and our mind will remain a blank.

What a Mental Image Is. To understand the nature of an image, we will have to go back to the percept. Suppose we hold a flower before your eyes. The light reflected from that flower sets the nerve current of the eye in motion, and a message is carried to the brain. Suppose a few minutes later, we speak about the flower. What happens? You think about the flower, and almost instantly an image of the flower appears. A mental image, then, is a copy of a former percept.

It must be borne in mind that the power to image former percepts varies in different persons. One pupil may have a wonderful faculty for recalling beautiful scenery or works of art. Another may have an unusual ability in remembering faces or voices. And still another may

be able to reproduce the different parts of a play that she has seen the evening before.

An Aid to the Imagination and the Memory. Images are the food on which the imagination and the memory thrive. A person endowed with a rich supply of images gained from sense-impressions has the materials to build imaginary pictures of the past and of the future, but he who lacks these images is indeed handicapped in the work of imagination.

The memory, too, is greatly helped by a plentiful supply of mental images. You have often looked at an object or a scene that instantly recalled something else. You readily recall the mental picture you got years ago when you read about the Boston Massacre. The impression made on your mind was so strong, and the mental picture you received was so vivid, that it now comes to the assistance of the memory in bringing back to your mind the striking features of that historical event.

The great joy of reading much of our literature comes from the mental pictures gained thereby. Here again all persons do not receive the same amount of pleasure from reading, principally because they have not the ability that others have to image things. What a flood of pictures comes before the mind as you read the Biblical narrative of Adam and Eve in the Garden of Eden!

Images and Stimuli. On what, you may ask, do images depend? Chiefly on the sensory stimuli. Take, for example, a child who is at a circus. The sensory stimuli are such as to awaken and to energize every sense. If

there are no obstructions in the nervous system, that sensation will make a deep impression on the mind, one that can be recalled at a moment's notice. Our mental images, moreover, depend on the frequency of recall. A person who brings to mind the same mental picture a number of times has undoubtedly a clearer and more workable image than the man who has never recalled it.

It must also be borne in mind that images that come from all the senses combined are more vivid and lasting than the mental picture that comes from one sense organ. In union there is strength. This is why the efficient teacher endeavors to utilize as many of the senses as possible in the work of her class. The reading lesson, the history lesson, the geography lesson, the Bible history lesson, the literature lesson, and the nature study lesson, lend themselves especially to securing vivid mental images.

3. THE IMAGINATION

Two Kinds. To give meaning and significance to sensations, we know that they have to be compared and associated with past experiences which are nothing more or less than mental images or ideas of things kept in the storehouse of the mind.

It is evident from what has been said in previous chapters that the mind can reproduce almost exactly something that was done or seen years ago. The act of recalling these mental images or ideas is what we call *reproductive* imagination. But when we take the images in

the mind or our past experiences, and when, after comparing and combining them, we form a new mental picture, we have what is called *creative, productive, or constructive* imagination.

The difference between the two kinds of imagination is not difficult to see. The reproductive imagination merely recalls mental images that we already possess. (Though this act is wonderful in itself, there is nothing original about it.) But the productive imagination combines our past experiences so as to form new images or ideas.

Another Division. The productive imagination is sometimes divided into the *intellectual*, the *practical*, and the *æsthetic* or *poetical* imagination. The intellectual imagination serves to acquire new knowledge and to discover new facts. The practical imagination places before our minds such knowledge as will help us to do things or to ascertain means to an end. The æsthetic or poetical imagination does not directly strive after the acquisition of knowledge, but serves rather to satisfy the emotions.

Imagination an Aid to Education. Imagination is indeed a valuable asset in the work of education. It looks into the future and shows us the ideals for which we are striving. It enables us to foresee the joys and the sorrows of this life, and it gives us a foretaste of the eternal bliss of heaven. The imagination enables us also to look into the past and to live with the intellectual giants who have gone before us. It helps us, furthermore, with the

ordeals of the present, oftentimes bringing light and sunshine to a gloomy atmosphere. See how helpful it is in the interpretation of history, literature, and art. See how it has aided science and invention. See how useful it is even in business life.

Kept within Bounds. Helpful as imagination is in the work of education, it has, like many other things, to be kept within bounds; for, if our emotions are not controlled by the mind and the will, we are most likely to have exaggerated and outlandish imaginations.

In younger children, the imagination is apt to go beyond bounds. They can oftentimes imagine the most ridiculous things. They are not particular whether their imaginings are true to nature or not. Such wild and fanciful images are not always conducive to the acquisition of knowledge. Neither are they always helpful in intellectual development. But as these children grow older, the power of the imagination grows in strength and in rectitude. It becomes more and more under the influence of the mind and the will.

A Changed Attitude. In olden times, teachers paid little attention to the educative value of the imagination. It was generally regarded as a hindrance to the pursuit of knowledge. It gave evidence of an idle and a curious mind.

To-day, however, it is utilized in every division of education from the kindergarten to the university, because it is capable of giving life and interest to the different studies. At the same time, the conscientious teacher is

always on the lookout for the extravagant and outlandish imaginations of youth. She does not exactly restrain these imaginations, but she directs them along the proper channels. In addition, she endeavors to supply the pupils with such mental images as will bring their imaginations to a reasonable norm.

What Is Necessary. Productive imagination is limited by our supply of images and by our constructive ability. The more images we have ready for recall so much the better is our power of imagining. But even a plentiful supply of images is not sufficient. A man may have tons and tons of bricks and mortar, but unless he knows how to construct the house, the supply of bricks will not help him. So it is with the supply of images. He may have an unusually large number, but unless he has constructive ability, he cannot form them into new imaginations.

FOR FURTHER STUDY

1. Show the importance of the distinction between "perception" and "apperception."
2. Which are the most profitable kinds of perceptions?
3. From personal experience, show that the power to think in mental pictures varies in different pupils.
4. Explain to a class of teachers the educative value of mental images.
5. Show the precise difference between "images" and "imagination."
6. How can the visualizing faculty be developed by education?

7. Show that productive imagination is good not only in art but in the mechanical world.

8. How is imagination especially helpful to the grade teacher?

9. Are illusions, hallucinations, and dreams related to imagination?

10. How far is imagination capable of training?

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XI

ASSOCIATION OF IDEAS

Its Meaning. When a number of persons belong to a certain society, there is an added bond of union arising from association with the different members. So it is with ideas. Those that have been connected in one way or another in the past have a tendency to keep together, so that if one of the ideas comes to mind, the others, too, are recalled. This is what is called the association of ideas.

Hundreds of teachers have used association in their school work without adverting to it. It occurs in the teaching of primary reading, especially when the pupil goes from the object to the printed word, or from the word to its meaning.

The nervous system is certainly brought into play in association. A man walking in the snow generally follows the beaten path. So it is with the nerve currents. They tend to flow in the direction of least resistance, and that is generally the beaten path. The main idea has a tendency to draw along all the other ideas that are in any way bound to it.

The Laws of Association. The laws of association are differently divided. Some authors give three or four, and others mention merely two, namely, *contiguity* and *similarity*. If certain things are experienced in the same

place or at the same time, and if one of these things is afterwards recalled to the mind, the others tend to reappear also. This, in brief, is the law of contiguity. In the same way, things that resemble each other tend to reappear in the mind together. This is the law of similarity.

Other educators give the following division :

(1) The law of *Recency* may be thus explained. Other things being equal, the experience that is most recent is likely to determine the course of mental movement.

(2) The oftener things are associated, the stronger will be the tendency to push themselves to the front. This is known as the law of *Frequency*.

(3) The more intense the impression, the greater will be the possibility of subsequent recall. This is called the law of *Vividness*.

(4) The law of *Congruity* takes into account the emotional tone of the impression and the mood in which we are. If the emotion and the mood are of the same character, they tend to help each other. If they are opposite, they tend to destroy each other.

(5) The law of *Interest* shows that the thing in which we are most interested makes the deepest impression on our minds and is apt to be most lasting.

The Importance of Association. It is easy to see how association plays an important part in the work of education. So much is said nowadays about the necessity of utilizing correlation in teaching the various subjects. But what, as a matter of fact, is correlation? Does

it not mean adding interest to a subject by the use of the related subjects? Are not related subjects generally associated?

Whereas association is used in a general way in the teaching of all subjects, it is particularly the basis of memory.

Association Explained. Some philosophers have endeavored to explain the facts of association on a purely physiological basis. But in reality such an explanation does not explain the mental and the physical elements of the phenomena.

Other philosophers tending to the opposite extreme have asserted that association has nothing to do with the organs of the body, but is wholly spiritual. This explanation is as far from truth as the former. It fails to explain the facts of experience and consciousness.

How then shall we explain association? In the first place, we must take into consideration both the physical and spiritual elements of the phenomena. This is exactly what the Rev. Edmund J. Wirth, Ph.D., does in his explanation in the "Catholic Encyclopedia." He says very truly: "The Scholastic doctrine — that the subject of sensory activity is neither the body alone nor the soul alone — but the unitary being compounded of body and soul, offers the best solution. As sense perception is not purely physiological, or purely mental, but proceeds from a faculty of the soul intrinsically united to an organ, so the association of these perceptions proceeds from a principle which is at the same time mental

and physical. No doubt purely spiritual ideas also associate; but, as St. Thomas teaches, the most spiritual idea is not devoid of its physiological basis, and even in making use of the spiritual ideas which it has already acquired, the intellect has need of images stored in the brain. It requires these organic processes in the production of its abstract ideas."

FOR FURTHER STUDY

1. With what principle of education is association of ideas intimately connected?
2. How does association come about?
3. Show how association unifies experience.
4. Explain how association is helpful to memory.

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XII

MEMORY

Its Importance. During the World War, one of the chaplains stationed in New Jersey visited New York city with a view of seeing the places of interest. He had no sooner alighted from the train at the Grand Central Station than he lost the power of memory. He could not tell his name. He did not know where he was going, or whence he came. His mind was a blank. As a consequence, he had to be taken in hand and treated as a mere child until the good Lord deigned to give him back the power to remember things.

The following example will bring the matter closer to the subject of education. A certain young woman of the usual mental ability took a course in shorthand and typewriting. She was a most industrious student. In fact, she worked harder than any other girl in the school. In the course of time, she made remarkable progress in typewriting, but in shorthand she was a complete failure. She forgot the next morning what she had learned the day before. She made no progress. Her memory was defective. So she was forced to give up the attempt.

These incidents will give you an idea of the important place that memory holds not only in education but also in life.

Its Meaning. What then is memory? In the ordinary acceptation of the word, "it is the ability to retain and to recall past experiences;" or it may be defined "as that power which retains, recalls, and represents things previously known or experienced."

The memory, then, holds past experiences, and at a given signal recalls and represents them to the mind. According to the best authorities, it has its basis in the brain. It is not, however, purely material. It has intimate connections with the body and the soul. It is a mixed composition. It is, therefore, not spiritual.

Like the leaves of the forest, there are many different kinds of memory. Four common classes may be mentioned: (1) pupils who learn slowly and retain well, (2) pupils who learn slowly and forget quickly, (3) pupils who learn quickly and forget quickly, and (4) pupils who learn quickly and retain well.

On What It Depends. A good memory is said to depend: (1) upon the ease and the rapidity of acquiring impressions, (2) on the permanency of the retention, and (3) on the ability to recall promptly and accurately the thing that is wanted. In other words, it depends chiefly on the original act of impression, the process of retention, and the power to recall.

To be more thorough, a good memory depends on the object that stimulates the senses, on the nervous system that carries the message to the brain, on the healthful condition of the brain, on the impression made therein,

on the permanency of the retention, on the power of recall and representation, and on the repetition of the act.

Mechanical and Logical. From an educational point of view, the memory may be divided into two classes, the *rote* or *mechanical* memory and the *logical* or *rational* memory. Both of these are necessary in the process of education. The former works like a machine. Words rather than ideas are memorized. It requires but little mental activity. The latter form of memory calls the reasoning powers into play. It strives for the thought rather than the mere word. It utilizes all the laws of association.

Its Use in Childhood. At first, the child uses chiefly the mechanical memory. It is utilized especially in teaching primary reading. The child goes from the object to the word, and later on from the printed word to the object for which it stands. It is used in learning the tables, memory gems, nursery rhymes, morning and evening prayers, and the early part of the Catechism. But as the pupils make progress in their studies, the mechanical memory should gradually decrease and the logical memory should increase.

Mechanical Memory Stressed. In the dim past, the mechanical memory was cultivated to an extravagant degree while the logical memory was somewhat neglected in the work of elementary, and even in secondary, education. This is not surprising, when we consider the time and the progress that had been made in the science and

the art of teaching. Neither was it particularly confined to any one set of teachers. It was, so to speak, the fashion of the day.

The Pendulum Moves. During the past century, educators realized that the mechanical memory was stressed too much. So they set to work to correct this tendency. In their laudable desire to do so, they have sometimes gone to the opposite extreme, that is, they frowned upon the use of the mechanical memory in the work of education. This of course was a serious mistake. In fact, the effect of the tendency is felt to-day in our colleges and universities. The efficient teacher is never an extremist. She utilizes the mechanical and the logical memory in accordance with the mental ability of her pupils and the subject that they are studying.

Recall. The efficient recall of past experiences is governed as a rule by the laws of association: *recency, primacy, vividness, and frequency.*

The more recently an impression has been made on the mind, the more easily it is to be recalled. Something that impressed me to-day is more likely to be reproduced in consciousness than a thing that impressed me similarly five weeks ago.

In the second place, it can be said with truth that "first impressions are lasting." A child sees a beautiful picture of the Immaculate Conception for the first time. It naturally attracts his attention. He looks at it intently. That impression will remain in the mind for many a day.

Thirdly, the more vivid the picture the more easily it is recalled. A pupil may have seen a number of attractive toys in a store window. Among these was a handsome bride doll that took the fancy of the girl. It stands to reason that the doll which made the deepest impression in the mind will be the first of all the things in the window to be recalled.

Fourthly, the more frequently we see a thing, the more lasting the impression, and the less effort is needed to recall it. This lies at the basis of the psychology of habit. The oftener a pupil sees an object, the more he knows about it, and the more it is impressed in the mind. A simple word or sign will promptly bring it back to consciousness.

Its Importance in Education. The more we study the subject of memory the better we can realize the important place it holds in education. That being so, it is the bounden duty of the teacher and the educator to exercise and improve the memory as much as possible. This can be done by leading the pupils to store up and recall occasionally a large number of intellectual impressions; by having the children combine, organize, compare, and contrast these impressions; and by giving them opportunities to utilize in written and oral English their fund of such impressions. Above all, we can help to cultivate the memory by developing the power of attention in our pupils, and by cultivating the ability of holding up to the mind past sensations or impressions as if they were present.

FOR FURTHER STUDY

1. Why are there so many erroneous opinions about memory?
2. Why should writing never be used with younger children as an aid to memory?
3. What is the relation between memory and the understanding?
4. Give a number of instances in which a pupil uses the mechanical memory and the logical memory.

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XIII

ATTENTION

Its Meaning. There are certain states of mind intimately connected with the educative process. First in importance comes attention. In addition to this, there are the laws of mental reproduction, the laws of feeling, and the laws of willing.

Every teacher knows what the simple word "attend" means. If the story is interesting, the pupils attend to what is being said, that is, they concentrate their minds on it. Many things may appeal to them at that moment, but the story is uppermost in the mind. In a word, when the pupils busy themselves with one thought to the exclusion of all others, they are paying attention.

Attention, then, concentrates the energy of the mind upon one object of thought. In this way, the apperception becomes clear and definite, and the impression is lasting.

Its Necessity. The necessity of attention in the work of education must be branded on the teacher's mind. She must never forget its importance. She must remember that it oftentimes distinguishes the bright pupil from the dullard, and that lack of it is the fruitful cause of retardation. She must always strive to become more and more proficient in holding the attention of her pupils; for if

the members of her class do not attend to her instructions, they will make but little progress in their studies.

Inattention. Directly opposed to attention is inattention. In all schools, you will find two kinds of inattention: lack of concentration and mental wandering. The lack of concentration means that we may think about the subject under discussion, but that we do not think hard enough. Our mental activity is not accurately focused. It needs further stimulation.

Mental wandering springs from an undisciplined mind. A pupil may have the power to think hard and efficiently, but when that power is easily led astray, we have what is called mental wandering. Primary grade children need constant stimulation to keep them thinking on one subject, but as they grow older they gain more and more power in directing the mind along certain lines and in keeping it in place.

External and Internal. Attention is sometimes divided into external and internal. The former comes from those external impressions which we derive from the world of sense. The latter is the result of internal images, ideas, and thoughts.

Attention produces an effect on the feeling, on the intellect, and on the will. A man striving with all his might to defend himself has been known not to feel the pain of a wound inflicted by his enemy. Why? Because his mind was taken up entirely by what he was doing. But just as soon as the conflict was over, he at once felt the pain.

Its Effects. The immediate effect of attention on the mind is to give vividness and distinctiveness to the image of the object. This in turn arouses more completely the intellectual faculties, and as a consequence makes a deeper impression on the mind.

Attention, moreover, has the effect of making our acts more vigorous and concise. This is brought about by the influence exerted by the feelings, and the intellect. Both of these are capable of reënforcing or diminishing the acts of the will.

A Fundamental Law. From what has already been said, it is evident that "one thing at a time" is the great law of mental activity. We cannot as a rule do two things well at the same time. We cannot study our lessons effectively and listen to a conversation.

The degree of attention depends on the quantity of nerve energy at the person's disposal and the strength of the stimulus that excites the attention. The stimulus may be external or internal, that is, it may be connected with the object, or it may be a motive in the mind prompting the person to act in a certain way.

How to Secure Attention. "How shall I secure attention?" is a question asked frequently by young teachers. These very teachers may have studied the matter of attention at normal school, but for one reason or another they did not realize its importance in the educative process. They allowed the golden opportunity to slip by, and now they regret it, because they realize that they blundered.

To secure the pupils' attention, the teacher must in the first place utilize the law of *novelty* and *contrast*. What precisely does this mean? Go into a primary grade. Watch the experienced teacher dealing with the pupils. As soon as they tire of any exercise, she gives them something new to do. This renews the attention of the children.

For practically the same reason, strong contrasts are well-known means of securing attention. For example, if the pupils of the class have been listening to a little girl with a squeaky voice reading a story, and the teacher then calls upon one of the boys with a deep bass voice, the children instantly realize the contrast. They listen more attentively.

Interest, too, secures attention. When we behold something strikingly true, beautiful, or good, we are naturally interested; and our interest forces us to pay attention.

Another source of interest in things is their connection with some pleasurable or painful feeling in our past experiences. One thing suggests another. Association attaches a new source of interest to things.

Interest, moreover, may be attained by a more intellectual form. Suppose a teacher is most anxious to get a comprehensive and practical knowledge of education. Naturally, she is interested in textbooks that supply the information she needs. The wish of that teacher gives rise to interest.

What a Teacher Should Possess. To guide the young along the pathway of education implies, on the part of the

teacher, the power of holding the pupils' attention. This in turn implies that the teacher knows the child mind, and is capable of calling forth its full activity. To do this successfully, it is necessary for the teacher to remove all obstacles to the pupils' mental progress, and to make the work of education as agreeable and as attractive as possible.

FOR FURTHER STUDY

1. Why is attention so important in the work of education?
2. What are the characteristics of attention among children?
3. What are some good ways of securing attention?
4. Recall a few of the objectionable ways of securing attention.
5. Explain "Attention is the gateway of the mind."
6. Is the fluctuation of attention always caused by fatigue?
7. Is there any difference between "nonvoluntary" and "spontaneous" attention?

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XIV

THINKING

Simple but Hard. Some of the common things of life are the hardest to explain or to define. This is certainly so as regards the meaning of thinking. Every one uses this word. It is in the vocabulary of the educated and the uneducated, of the children and of the adults. Yet, how few persons could tell you precisely its signification.

The fact that thinking is used in more than one sense makes the definition of the word more difficult. It is the reason why so few people attempt to tell you what the term means.

What are the ordinary meanings of the word thinking? Sometimes it is used to signify idle conjecture, as when a person says, "I guess so." In this kind of thinking there is no definite purpose in view. It is really haphazard.

In the second place, thinking is sometimes used instead of believing. Children oftentimes say, "I think so," when they mean, "I believe so." Very often this form of thinking has little or no foundation. The person has not examined the pros or the cons of the matter. He follows the lead of his parents or teachers.

Assimilative Thinking. These two kinds of thinking are more or less prevalent in the lives of most people.

But they have very little to do with the educative process. It is not so, however, with assimilative thinking which occupies a very important part in most of our study. We utilize this form of thinking when we endeavor to gain and understand new facts and ideas and to make them our own by connecting them with some of our past experiences.

We may commit many things to memory, and yet derive but little benefit from them, because we have not understood and assimilated them. Assimilative thinking, then, is necessary for real progress in educational endeavor. When we read a textbook, we must understand it and make its contents a part of ourselves if we wish to do assimilative thinking. This is the kind of study that counts. This is the kind of thinking that enriches our lives.

Deliberative Thinking. Deliberative thinking is considered the highest type. It necessitates the making of a choice. Shall we take a trip to Rome or attend the summer session of Sisters' College at the Catholic University? One stands for pleasure, the other for work. To make up our mind, we need to think of many things. Do we need a vacation? Are we physically fit to follow with profit the summer course at Washington? Which will help us most in the art of teaching? These and many other things have to be decided before we make a choice to go to Rome or to Washington. This is an example of deliberative thinking, or thinking that requires deliberation.

Find Relations. The purpose of all real thinking is to find relations between the thing that we are thinking of and some past experience. To be more brief, the function of thinking is to discover relation. At first, this may appear rather insignificant, but the better we understand the meaning of finding relationship, the more extensive and the more complex the work becomes. What is more, the discovering of new relations gives rise to new thoughts.

Child and Adult Thinking. There is, as one naturally supposes, a vast difference between the thinking done by a child and that done by an adult. The child has fewer experiences, and as a consequence sees fewer relationships. Moreover, the relations that he perceives are immediate: they are necessary and obvious ones. The adult has a larger fund of experiences to draw from, and his mind is more mature to recognize not only immediate, but also mediate, relations.

1. CONCEPT

Classification. In order to get a better grasp of the meaning of thinking, we will divide the act into *concept*, *judgment*, and *reasoning*. Though we speak of these as if they were three separate things, in reality there is no such division. A brief account of the meaning of each, however, will help us to get a clearer notion of the connotation and the denotation of the term "thinking."

Meaning. In the course of time, man found it impossible to investigate the relationship between the millions of objects that are in this world. This difficulty

brought about their classification. The first great division is the *inanimate* and *animate* objects. In turn the animate objects are divided into *plants* and *animals*. The animals are further divided into *rational* and *irrational* animals, and so on until we come to things as they exist to-day, when the rational animals are grouped according to the different races, and the irrational animals are grouped into distinct classes or families such as the horse, the cat, the dog, etc.

In educational psychology, this process of classification is called a concept. What, then, is the use of concepts? They enable us to think in large terms. They free us from the necessity of thinking about individual objects. We look at things in their classified order.

How a Child Gets a Concept. Let us examine how a child gets a concept of "cat." At first, he merely thinks of his own cat which is rather small with black and white fur. Some time later, he happens to visit a neighbor and notices a large white cat. He compares the two and as a result, his idea of cat is changed. As he grows older, he finds out that there are black cats and white cats, small cats and large cats, tame cats and wild cats. After having seen a number of different cats as well as pictures of them, the child finds out that there are certain things common to all cats. Thus he forms in his mind the concept of cat.

His first idea of cat was very definite, because he thought merely of his own cat. But the more cats he saw, the less

definite his idea became. In other words, as the term "cat" extends, the less definite the object becomes.

Whence Concepts Come. Our concepts, ideas, or general notions are made from percepts or particular notions by (1) comparison, (2) abstraction, (3) generalization, (4) classification.

A concept, then, is a general idea of a class of individual objects. This classification of the different objects of the world is most helpful in the work of education. The more concepts we possess, the better prepared we are to become truly educated men and women.

2. JUDGMENT

What It Is. We have already seen that the nervous system carries outside information to the brain. From this treasure house, the mind extracts its supply of material for thought. This material has to be associated, compared, contrasted, and arranged by the powers of concept making, judgment, and reasoning.

Now what is judgment? It is perhaps the most important act of the mind. Its chief function is to separate the true from the false. Suppose some one said, "All the children in the Sacred Heart School are studious." Suppose that you are called to pass judgment on that statement. What would you do? You would first say to yourself, "Is it true, or is it false?" To answer this question you would collect all the evidence for and against. After investigation, you would find out that it is most extraordinary to have all the children of any large school

studious. You would then probably ask other teachers and principals about the matter. Finally, you would say that in your judgment the statement, "All the children in the Sacred Heart School are studious," is not correct. It is too sweeping. It would be more in keeping with the truth to have said, "Nearly all the children in the Sacred Heart School are studious." To arrive at this judgment you have to separate the true from the false.

Practical and Conceptual. There are two types of judgments: the *practical* and the *conceptual* judgments. The practical judgment compares an individual object with a similar past experience. The conceptual judgment compares a class of objects with another class already in our experience. For example, the concept *man* and the concept *animal* are brought together for comparison. The mind analyzes each term into its elements, compares them, and finds out the essential identity of meaning in a sufficient number of elements to warrant the judgment that man is an animal. This judgment is the result of comparison. It finds a certain identity between the two terms and thus arrives at a new bit of knowledge. This is a conceptual judgment.

On What Judgment Depends. The correctness of our judgment generally depends on our knowledge of the terms compared, and the ability of our mind to make a comparison and to sum up the results. To compare and form a judgment about two school children, it is necessary that you should have a knowledge of both. So it is in comparing two concepts: you must have a knowledge

of them. Yet, this is not all. The judging faculty of the person must have been so developed as to be capable of comparing two concepts.

Incorrect judgments generally come from insufficient knowledge of one or both of the percepts or concepts. Children in the primary and grammar grades oftentimes make the most outlandish judgments, simply because they do not always know enough about the things upon which they pass judgment or their minds are not sufficiently mature. But as they grow older, and gain more percepts and concepts, so much the more will their judgment improve.

3. REASONING

Its Meaning. The concept serves to group particular things into classes. The judgment seeks to ascertain whether a statement is true or false. Reasoning discerns cause relations, or infers a new truth from two related truths.

Just as percepts and concepts are the materials on which we form judgments, so judgments are the material on which we base our reasoning. Reasoning, then, is the highest kind of intellectual endeavor.

All men are rational animals.

Major premise.

John Brown is a man.

Minor premise.

Therefore, John Brown is a rational animal. *Conclusion.*

These three sentences are called a syllogism, which is made up of a major premise, a minor premise, and a

conclusion. If the major and the minor premises are correct judgments, the conclusion or inference must also be correct, because it is contained in the other two.

Deductive and Inductive. You will notice in the above syllogism that we proceed from the whole to the part, from the general to the particular. This is called *deductive* reasoning.

Inductive reasoning, on the other hand, proceeds from the particular to the general, from the parts to the whole. The mind advances from particular objects or actions to the understanding of concepts or general notions.

In the above syllogism, how do we know that "All men are rational animals"? To arrive at this judgment, we need inductive reasoning. We need to go from particulars to the general. This presupposes that we have examined a number of individual cases and found that they were rational animals. We then conclude, since all the men that we have examined were rational animals, we may validly say, "All men are rational animals." Yet, we can never be absolutely certain unless we have examined each case. You see then that deductive reasoning presupposes inductive reasoning. In other words, before we can reason from the whole to the part, we must first reason from the part to the whole.

In the work of education, deductive and inductive reasoning must go hand in hand. We cannot afford to stress one and neglect the other. Both are necessary. We cannot get along without them.

FOR FURTHER STUDY

1. Do you think that the main end of education is to train the pupils to think? Why?
2. Explain "deductive" and "inductive" thinking.
3. Do children as a rule think of concrete or abstract things? Why?
4. Do we really train the pupils in the elementary grades to think?
5. Show that "truth" is the proper thought material.
6. Show how the possession of a rich vocabulary helps thinking.
7. Trace the various steps in the growth of a concept.
8. How are concepts related to thinking?
9. Show the utility of concepts in the work of education.
10. Discuss the origin of ideas.
11. What is truth?
12. How does good judgment help the seeker after truth?
13. What part does memory play in the act of judging?
14. Show the importance of educating the judgment.
15. Why is the reasoning power of children apt to be illogical?
16. Which of the methods of reasoning is best suited to the children of the primary grades? Of the grammar grades?
17. Does the ordinary teacher exercise the reasoning power of her pupils as much as she ought? Why?
18. What suggestions would you make for the better developing of the reasoning power of the children of our elementary schools?

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XV

FEELINGS AND EMOTIONS

A Matter of Feeling. Two speakers of average ability are invited to address a group of teachers on a given subject. Their speeches are well written and to the point. They are neither too long nor too technical. On the contrary, the language is clear and simple. There is no ambiguity about it. The first speaker gifted with an unusually good voice delivers his address so that it is heard by every one in the hall. But, strange to say, it makes but little impression. Thereupon, the second speaker addresses the gathering. He has neither the commanding appearance nor the splendid voice of the previous speaker. Yet he wins the heart of every teacher present. How does he do it? By the feeling that he puts into his words and gestures, and by the feeling that he transfers into the hearts of his audience.

The same thing is true of every teacher. She must put feeling into her work if she wishes to succeed. To convince a pupil is not enough; she must arouse his feelings if she wants to move him to action. This is why we discuss the feelings in a book on the fundamentals of pedagogy.

Knowledge Arouses Feeling. In the first place, we must remember that feelings are based on knowledge; that

all knowledge is capable of arousing some kind of feeling. We know that there are many humdrum experiences in our lives that seem to have little effect on our feelings. But the fact still remains that every experience gives rise to some sort of feeling.

Kinds of Feeling. Many authorities enumerate six distinct feeling states: these are *pleasure, pain, desire, repugnance, interest, apathy*. All the other states of feeling that we commonly speak of can be traced back to one of these. Sometimes other words are used such as pleasant and unpleasant, agreeable and disagreeable, for pleasure and pain.

How then shall we define feeling? It is a state of mind expressing either pleasure, pain, desire, repugnance, interest, or apathy. How does it differ from emotion? Authors explain the difference between feeling and emotion in several ways. For our purpose, it is sufficient to say that the difference is a question of degree. A feeling, when it reaches a high degree of intensity, becomes an emotion.

The Effects of Feeling. There is no doubt that our feelings, or the mood in which we are, has an influence on our judgments and our decisions. A man who is in a tired and nervous state will have little patience with children, though ordinarily he may be fond of them. A sickly person cannot fully enjoy the wit and humor of a comic opera. His pessimistic view of life invariably changes his opinion of things.

Our feelings, moreover, have a marked effect on the

intellectual efforts that we make. If we feel sick at heart, we will not enter into our work with the same eagerness that we would if we had a bright and happy feeling.

When a certain feeling takes possession of our mind for a considerable length of time it becomes habitual, that is, a certain disposition is formed, so that with the least provocation we are likely to experience the same feeling. We know that there are moody people in the world. The common expression, "He is suffering from the blues," means that a certain depressing mood has taken possession of him.

An Emotion. If a feeling, when it reaches a high degree of intensity, is called an emotion, what is the physiological explanation of feeling? It may be summed up in this way: (1) Something is known through perception, or memory, or imagination. (2) This fact or thing that is known is of such a nature that it will set up an organic response. (3) The state of mind accompanying and caused by the organic response is what is called feeling or emotion.

The Feelings and Education. The feelings are used to great advantage in the work of education. The teacher can help her pupils very much in their school work by transferring to them the feelings by which she is prompted. Endowed with such sentiments, the pupils will make giant strides along the pathway of education. They will have a motive power pushing them forward.

The Feelings Need Guidance. The feelings have to be guided, tempered, controlled, and even restrained in some

cases; otherwise the pupils will be apt to fall into all manner of excesses. The little child, as a rule, has a terrible fear of a dark room or a closet. If that tendency is allowed to grow day by day, the child will become more and more nervous; and when he has to sleep alone in a room he will want the light on all night. Then, again, a child is apt to get a wrong impression of the teacher. It ought to be corrected before a habit is formed. The child must be shown in a simple way that the teacher is his friend and that she is in the classroom to help him.

Cultivate the Feelings. The feelings and the emotions should be cultivated through proper exercise. It is the duty of the teacher to place before the minds of her pupils stories that will serve to develop those feelings which are a help to mankind and keep in the background those which are apt to lead persons astray.

The Catholic Church is a past master in this work. What could be more helpful to cultivate the feelings than the ceremonies of the Church? Take for example a May procession of six or eight hundred little girls dressed in white and going to crown the statue of the Mother of God. It impresses the young and the old. In many cases, it moves them to tears to see these innocent little ones doing honor to the Queen of Heaven. What a flood of thought it brings to mind, and how it cultivates and develops the best feelings within us.

The experiences of our everyday lives, if we only interpret them properly, supply us with an abundance of material for the cultivation of the emotions. The words

of appreciation that are uttered, the kind deeds that are done, the sympathy that is extended, etc., — all these will help us to cultivate the feelings and emotions.

The reading of good literature, however, is perhaps the most fruitful source of material for the cultivation of the feelings. It supplies us with the interpretation of life by master minds. It enlarges our appreciation for the true, the beautiful, and the good, and places before us noble and inspiring ideals.

FOR FURTHER STUDY

1. What distinction do you make between the words, "emotions," "feelings," "sentiments," and "passions"?
2. Show that all our feelings express either pleasure or pain.
3. What do you think of this definition: "Pleasure or emotion is a quality that accomplishes the free, vigorous exercise of a healthy faculty"?
4. Show the difference between "sensation" and "emotion."
5. How are the feelings related to effort?
6. What suggestions would you give for the proper guidance of the emotions?
7. Do you think that the emotions are sufficiently cultivated in our present-day schools?

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XVI

THE WILL

Its Importance. A child may have an ample knowledge of his religion, but unless he uses that knowledge in life, it will be of little benefit to him. A teacher may have all the academic and professional knowledge possible, but unless she has the will to apply that knowledge in teaching, of what use is it to her? Knowledge in itself, then, is not sufficient. It is very useful, and even necessary, to know things, but the fruit of knowing things is doing things. Our country to-day needs men of action — men with a conscience, men who will put into practice in their lives the teaching of our Lord and Saviour Jesus Christ.

To bring about this happy result, education must train harmoniously and naturally the knowing, the feeling, and the willing faculties of the pupils. The children must be led to understand that knowledge utilized in life is much more important than knowledge that is not utilized. You have often told your pupils that our schools aim to produce practical Catholics — men and women who not only know, but practice, their religion. To a certain extent, the same is true of knowledge as of religion. The more we utilize it in our lives so much the more helpful it is.

Its Meaning. The will may be briefly defined as the faculty of choice. Its content is made up of consciousness, feeling, and a distinct sense of effort. Its chief function is to do or not do some act. The will is conditioned not only by knowledge but also by feeling. On Sunday morning, a Catholic realizes that he is obliged to attend Mass. Yet he has a free will. He may go to Mass or he may stay at home. His knowledge and his feeling are brought to bear on the matter. But now a choice has to be made. This is where the will comes in. Aided by the light of reason and prompted by the feelings, the will decides the matter.

Voluntary and Nonvoluntary Acts. The act that we have just spoken of was a voluntary one, that is, it was willed by the person. But all our acts are not voluntary. For example, there are the simple reflex acts, such as the movement of the heart. These require no movement, no direction, no choice. There are instinctive acts such as the winking of the eye. These require a stimulus, but they need neither direction nor choice. There are, moreover, automatic or spontaneous acts such as writing. These are generally performed without any conscious end in view.

Many acts of our lives are then either simple reflex, instinctive, or spontaneous. In educational literature, they are oftentimes referred to as nonvoluntary, or involuntary, acts.

Nonvoluntary acts, useful in themselves, do not play a very important part in the educative process, because

they do not call forth the mental activity of the pupils. It is different, however, with voluntary acts. These in the first place require attention, knowledge, feeling, and choice.

Weak and Strong Wills. Every observant teacher has noticed that there are children with weak wills and children with strong wills. Some boys are strong enough to resist evil, but to do good they have not the will power. Others are prone to all sorts of misdeeds. The efficient teacher takes this fact into account in dealing with the different pupils of her class, because she realizes how necessary it is in the matter of discipline and educational progress.

The Development of the Will. It is a well-known fact that the will can be developed and trained. In early life, the child is the creature of impulses. These impulses come and go very frequently. As the child's experience enlarges, conflicting impulses strive for mastery. In a limited way, the will is called into play. Then as reason develops, and the child's power of comparison becomes more clear and distinct, the weighing and valuing of motives and reasons assume more and more importance in life. This is where the will is really called into full play.

As the power of the will increases, the power of the impulses decreases. The things that were done at first on the impulse of the moment are now done only after deliberation. Every impulse that is overcome by the will is a step in character formation.

Free Will. From the earliest times, we have had more or less discussion regarding free will. At the present time, a few educational writers assert that man is not endowed with free will. They contend that we must do what we do, even in spite of ourselves. They claim that every act is determined without the person's choice. Such a doctrine is diametrically opposed to the notions and convictions of mankind in general. It does away with duty, responsibility, moral obligation, and merit. It destroys many of our notions of pedagogy and of religion. Without the act of choice, what does the will amount to?

From a psychological point of view, we feel ourselves free to decide whether or not we shall give an alms to a blind man. We can make up our mind to give him some money or to refrain from giving it.

With the majority of mankind we hold then that man has a free will, that he can choose to do or not to do certain things.

FOR FURTHER STUDY

1. Why does the study of the will help us in our study of Christian Doctrine?
2. What is the relation of the will to study?
3. What is the meaning of Predestination? Whither does it lead?
4. What does the literature of the world teach about the freedom of the will?
5. How would you prove that we have free will?
6. Criticize, "While this is a denial of the belief in determined

will and predestined action, there is no reason for assuming the other extreme to be true."

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XVII

CHARACTER

Its Meaning. You have often heard the well-known expression, "That person is a man of character," but did you ever stop to think what it meant? Could you, at the present moment, give a definite idea of the signification of the above quoted sentence?

Be that as it may, it will not be out of place to recall to mind the germinal truths of the subject. To begin with, let us say that character means "the sum-total of the qualities that make a real man or woman." A person of character, then, is a man in the fullest sense of the word. But now the question naturally arises, "What qualities must be found in every human being to fit him for complete living here below and for eternal happiness in the world to come?"

The Characteristics of Real Men and Women. In this chapter, we shall throw some light on the above question. The child grows from within. This growth or development depends principally on the utilizing of his natural tendencies. The parent and the teacher should know these tendencies and should know how to modify them to suit their educational aim; for whatever we desire to have in the character of a man or a woman, we must find the rudiments of it in the child.

In the minds of some teachers, there is considerable confusion in regard to the proper treatment of the native tendencies. One thing is certain, and that is, that the teacher should not allow all the impulses to lead the child wherever they will. The teacher at best should be a guide and a leader. She should realize the qualities that are necessary for real men and women. Knowing these, she should help her pupils to acquire them.

The Tendencies Need Guidance. If the impulses are not guided by the parent and the teacher, they will oftentimes lead the child into much trouble. As a consequence, he will form bad and evil habits that may stick to him for life.

In the correct training of children, the parent or teacher has sometimes to use restraint, prohibition, and even coercion, so as to prevent the formation of bad habits. Great care must be taken lest the native tendencies of the child be entirely eradicated or destroyed. "Overcome evil through good" should be the maxim of parents as well as of teachers. How is this to be accomplished? By stimulating good acts, by weeding out bad ones, and by suggesting those that are new and desirable.

Creatures of Environment. The disposition of the child, too, has to be taken into account. Many pupils are the victims of circumstances and environment. In early youth, their dispositions are soured. Others on the contrary are made cheerful and happy by their surroundings. It is the duty of parents and teachers to introduce cheerfulness and hope, kindness and unself-

ishness, into the lives of the children. These will help to give them a correct view of life as well as to grow up with a disposition that will fit them for complete living.

Catholic education in particular stresses the importance of character formation. In a certain sense, it is the true aim of all education. In fact, education and character formation may be considered as identical.

Fundamental Habits. There are certain habits which should be cultivated from the very first day of school. One of these is obedience. It is one of the fundamentals of character formation. Without obedience, you cannot hope to train the child to become a man of character. So it is with industry, thoughtfulness, honesty, and truthfulness, etc.

What Is Habit? Habit, be it understood, is not merely a tendency to repeat an act. Neither is it established by the mere repetition of an act. What then is habit? It is a fixed tendency to respond in a given way to a certain stimulus. The school bell rings at twenty minutes of twelve for luncheon. That stimulus invariably sends the pupils to lunch.

Another important thing to remember is that all habits must be founded on a natural tendency of the child, that is to say, the teacher should begin with some natural tendency of the child and by the most approved means form it into a habit. In so doing, she is building on a firm foundation.

The Teacher's Influence. Teachers, furthermore, can exert a powerful influence on the character formation of

their pupils by helping them to cultivate good taste in their words and in their actions. We all have likes and dislikes. Some of them may be well-founded, and others just the opposite. The teacher will set about correcting in a natural and efficient manner those likes and dislikes that are not well-founded. She will also cultivate in the pupils a taste for bodily activity such as play, games, and the outdoor habit. She will imbue them with a love for the true, the beautiful, and the good.

Ideals. Character formation is influenced, moreover, by placing before the minds of the pupils ennobling and inspiring ideals. This is especially so with young children. We have numerous models for imitation. First of all comes Jesus, the Light of the World. How powerfully His life and deeds influence all children! Then come the Blessed Virgin, St. Joseph, the saints, and numerous other heroes and heroines of the Church. We have, furthermore, the inspiring characters of history both ancient and modern, especially those of our own country like Washington and Lincoln.

The Value of Textbooks. It is this very point that makes it imperative for our Catholic schools to have textbooks, especially in reading and in history, that will place before the minds of the children such characters for imitation as will make a profound impression — characters that will give a correct idea of right and wrong, characters that will stand for authority and discipline, characters that will exemplify the truly religious man and woman.

The textbooks, too, should give a knowledge of the great truths that underlie our relations to God and our fellow man. They should tell of the great heroes who discovered, explored, and made permanent settlements in the New World, as well as of the men who have done so much to make our beloved country what it is to-day.

Religion and Character. Many things, it is true, enter into the character formation of the pupils, but the most important of all these is religion. Is not religion the foundation on which character stands? Without religion, it is next to impossible to form a man of character. Every one in the world is more or less influenced by religion. Our ideas of life are saturated with it. The practice of it is the greatest help to the formation of character.

Among a large number of educators, it is the fashion in the latest books on education to omit all reference to religion. The public schools, it is true, cannot teach religion on account of the different sects that attend them. The Sunday schools are doing their best to inculcate religion, but the work done by them is not sufficient. Many boys and girls outside the Catholic Church are growing up with very little religious training. What will the result of this be? Read what Gladstone, the great English statesman, said, "It is a dangerous thing for a young man to start out in life without the thought of God."

Every child should have an opportunity to get a knowledge of God. This is his birthright. No man has a right to deprive him of it. He should know what God means to him, and how he is indebted to God. He should

be familiar with the life of Jesus Christ, the Redeemer of the world. He should know the many virtues of religion which Jesus Christ practiced while on earth. He should be acquainted with that great literary masterpiece, the Bible. Thus can his character be efficiently formed.

FOR FURTHER STUDY

1. Show the relation existing between "character," "habit," and "instinct."
2. Why do some authorities say that habit formation is the chief duty of the teacher?
3. What is the connection between motive and habit formation?
4. What do you think of this definition: "Habit is a fixed reaction to a definite stimulus"?
5. Is there a dangerous side to habit formation?
6. Enumerate and explain the laws governing habit formation.
7. Discuss inherited and acquired characteristics.
8. The teacher must decide what habits should be inculcated in the school. Explain.

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XVIII

THE EDUCATIVE PROCESS

What It Is. During the past century, giant strides have been made in the art and the science of teaching. Scholars have devoted much time and energy to this important work. Numerous investigations have been made, and thousands of teachers and educators are now engaged in an effort to formulate in clear and simple terms the educative process.

Though much has already been accomplished in this matter, still a great deal remains to be done before we can state in simple and precise language the process by which children are educated.

It is generally agreed that the possibility of education depends on the capacity of a person to profit by past experiences. It follows then that the acquisition of any experience which serves to modify our character is in reality a part of our education. It makes no difference what the experience may be so long as it appeals to our nature. It may be an account of the Crucifixion of our Lord, the heroic deeds of a saint or a martyr, the undying love of a mother, the sterling patriotism of Washington or Lincoln, the perseverance of a student, a boyish feat of valor, the customs of other races, the example of any child, etc.

The science of child study tells us that a child begins life with little conscious intelligence, but with a number of instinctive tendencies. These tendencies or impulses are regarded as the product of heredity. They are the foundations on which the teacher must lay the superstructure of education. To do this, the instincts must be subjected to a certain process that will develop naturally and harmoniously all the powers and faculties of the child. This work is called the educative process.

Heredity and Environment. In the work of education, both heredity and environment have to be taken into account. Heredity gives us a knowledge of the pupil's capacity to profit by past experience; and environment supplies the experiences that best promote the pupil's intellectual development.

No one to-day denies that man has the capacity to profit by his own experience. Even some of the irrational animals are capable of this. But man has another capacity that no irrational animal has, and that is, he can profit by the experiences of others.

We can truly say then that any experience, no matter how it is gained, that tends to modify our character belongs to the educative process, and the more experiences we have the more educated we are. We speak of education here not in its restricted sense, but as a process that begins at birth and ends at death.

The home and the school, the Church and the State, are the special agencies that provide environment for the

student. Each subject in the curriculum represents a special phase of past experience. Religion tells us about our duties to God and to our fellow man. Geography studies environment in the concrete, for it treats of the earth as the home of man. History gives us the experience of all those who lived in past centuries.

Each division of the curriculum represents a certain type of experience that is necessary for the complete development of the pupil. The school and the Church furnish the members of society with the most important knowledge that has been collected so that they may profit by it. In other words, the school and the Church provide suitable environments, regulate these environments, and use them for a definite end.

Educational Aim. It does not need much reasoning to see that the laws that underlie the educative process are dependent chiefly on the aim of education. Education has at the present time so many aims that it would fill a good-sized volume to discuss each of them. For our purpose, we shall merely mention a few of the more common and recent ones :

The "bread and butter" aim says that education should enable each individual to earn a decent living.

According to the "knowledge" aim, the purpose of education is mainly to supply knowledge to the pupils.

The "culture" aim asserts that the end of education should be the acquisition of general culture.

According to others, "social efficiency" should be the chief aim of education.

Others hold that character formation should be the principal aim of all education.

Catholic educators as a rule say that education should so prepare the pupils that when they grow to manhood and womanhood they will live honest, honorable, and upright lives in this world and thereby attain the end for which God created them.

Steps in the Educative Process. The mind gets its first knowledge from sensations caused by the things of the external world. Each organ of sense carries a certain amount of information to the brain. The mind perceives, associates, compares, contrasts, classifies, and makes "meaningful" the data furnished by the senses. This is commonly called apperception, or the reading of meaning into them.

It is impossible for the mind to utilize all the sensations that come from the external world. Some sort of choice has to be made. By what is the mind guided in this selection of sensations? Are the sensations selected according to their intrinsic nature? In the selection of sensations, the mind is not guided by their intrinsic nature, but rather by the primitive or acquired needs of the person. The primitive needs are those inherited by every human being, such as the instinct for self-preservation. The acquired needs are those necessitated by changed conditions of life, particularly the growth of the social powers.

Needs and Interests. In the early years of the child, the primitive needs predominate, but as he grows in ex-

perience and intelligence the acquired needs gradually gain the ascendancy. While the primitive needs influence the child, there is a low degree of apperception, but when the acquired needs predominate, there is a higher degree of apperception, and as a consequence a more educative act.

Just as there are primitive and acquired needs, so there are primitive and acquired interests. Interest, be it remembered, does not mean following the line of least resistance. Such an act has little or no educative value. Interest may be defined as a desire to satisfy acquired needs.

Interest in anything promotes attention. As far as passive attention is concerned, the child does not need the guidance of the teacher. But in active attention, all the power of the teacher is required to prevent the child from straying away from the mental work in which he is engaged.

Mental Activity. The central and chief feature of education is work, or mental activity. In fact, there is little or no educational progress without mental activity. This can readily be realized when we consider a feeble-minded pupil. To all appearance, he does in school everything that the other members of the class do. While they make intellectual progress, he makes little. Why? Because he is incapable of much mental activity.

The Teacher's Work. How then shall the work of education proceed? The teacher will begin with the instincts of the pupils and lead them into educative chan-

nels. When, for example, a boy goes to school for the first time, he naturally wants to play. Realizing this impulse, the teacher will provide new play exercises that will give him new experiences and a slight taste of work. Later on, when the imitative and the constructive instincts show themselves in her pupils, the teacher will utilize them for further educational endeavor.

Having turned the various impulses of her pupils into educative channels, the teacher will help the children to get apperceptions no matter how simple they may be. These will become higher and higher as the child progresses in school; the passive attention will grow into active attention, thousands of images will be placed before the pupils, numerous experiences will be gained, the judgment and the power of reasoning will be exercised, and the will and the feeling will be duly developed.

Character Formation. The experiences gained through education lead to the formation of habits. Each new trial or effort that a child makes brings to him new experiences and helps to make the next trial more successful, and after that same act is repeated a number of times the habit formation generally follows.

Strange as it may appear, it is necessary to break some habits before we can form others. Take, for instance, a child who has a habit of talking incorrectly. He says, "I walks into the room and sits down on the rocker." Before that pupil can form the habit of correct speech, he must break the habit of incorrect speech that he already has formed.

Judgments. Once a habit is formed, it happens over and over again without any apparent effort. But it is entirely different with regard to a judgment: in every case that requires the attention. In the practical judgment, we call upon concrete experiences to help us to solve the problem; in the conceptual judgment, we call upon the application of condensed experiences to aid us in deciding.

In the early stages of child development, the judgments are as a rule practical ones. But as the pupils make progress in their studies, the conceptual judgments become more and more prominent in the mental life of the children. The latter judgments require a higher degree of attention in associating, comparing, contrasting, and classifying the thought material.

In the educative process, we see a gradual development of sensation, perception, apperception, imagination, memory, judgment, reasoning, feeling, and willing in an effort to teach the children to think logically, to form their character aright, and thus attain the end for which they were created.

FOR FURTHER STUDY

1. Why is it most important that the teacher should understand the educative process?
2. What is meant by the "trial and error" method of instruction?
3. Why have we a better idea of the educative process at the present time than teachers had fifty years ago?
4. On what does the educative process principally depend?

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XIX

PRINCIPLES OF EDUCATION

The Teacher's Guideposts. Every art worthy of the name has a number of fundamental principles to guide the student in attaining a mastery of it. The art of teaching is no exception to this rule. It has its guiding principles which lie at the basis of all educational endeavor. They are the guideposts followed by efficient teachers. Consciously or unconsciously every teacher must utilize them if she wishes to do successful work in the school-room. These principles are expressed differently by authors, and their number varies. For our purpose we will take the most important ones.

The Principle of Adaptability. In matter and in method, teaching must be adapted to the capability of the one taught.

In years gone by, this fundamental principle of education was not utilized by many teachers. But since the advent of child study and educational psychology, the textbooks, the instructions, and the method of presenting knowledge to the pupils have undergone a wonderful change. Compare for example the old New England Primer and the Ideal Catholic Primer. You will readily notice the changes. A glance at the two books will show the remarkable improvements that have been made.

So much for the matter taught. The method of teaching, too, must be suited to the mental ability of the child. No sane teacher will treat the first graders practically the same as she would the pupils of the eighth grade. It would be a waste of time and energy. The average teacher knows that there is a certain way of arousing the interest of boys and girls in the first grade. There is a certain effective way of connecting new experiences with old ones. There is a certain way of stimulating the mental activity of little children. For example, the first graders will not be very much benefited by a long discourse about the evil of lying. They cannot grasp the matter. But tell them a short story about a boy who always told the truth, and you will have their attention from the beginning to the end. That story will mean more to them than the long discourse. Why? Because it is better adapted to their mental ability and it is presented in a way that cannot fail to appeal to them. The teacher knows her audience and knows just how to arouse their mental activity.

Though textbooks as a rule are now adapted to the capability of the pupils, there is one book, the Catechism, that has been changed but little. Many of the editions are not suited to the mental ability of children six and seven years of age. The world is waiting patiently for some great teacher or educator who will grade scientifically and logically the contents of the Catechism.

The Principle of Apperception. There seems to be something about this title that tends to frighten stu-

dents of education. Apparently the word "apperception" looks rather difficult. In reality, the principle of apperception is easy to grasp, as you will readily see.

Apperception has been defined "as the act or process of adding a new idea, or a series of ideas, to an old one," that is, to one that is already known. In other words, the idea or the truth to be taught must be learned through a **truth** already known. There must be a connection between the two.

Let us, for example, place an illustration of an apple on the blackboard. The children will readily tell you that it is the picture of an apple. They recognize the object but they do not know the printed symbol. From the idea of the object which the pupils have, the teacher will lead them by association to a knowledge of the word "apple." In the course of time, the illustration and the word "apple" will have the same meaning for the children.

Let us go a step farther. Suppose that the teacher wishes to present to her pupils the sound of "a" short. She will print the word "apple" on the board. Then she will pronounce it slowly, as "a-pple." She will have the children do the same. When the sounds of the two parts of the word are firmly fixed in the minds of the pupils, she will cover the latter part, and have them give the sound of the first part. In this way, she teaches the sound of "a" short.

We have said that the truth to be taught must be learned through a truth already known. Suppose the teacher wishes to give her pupils a knowledge of the love

of God. How will she proceed? She will have the children recall to mind the love of a father and a mother for their offspring. Every normal boy or girl has some idea of their parents' love. The teacher by well-directed questions will make this matter very plain to her pupils. Then when they realize what a father's and a mother's love means, she can lead them gradually to a realization of the love of God Who is the Father of all.

So much of the work of the present time is inefficient and wasteful, because the teacher does not know how much her pupils know. She does not know the point of contact. Her teaching is not connected. The new ideas are not linked to the old. To produce a strong chain each of the links must be well united. So it is in the educative process. Each step must be connected with something going before, and the more connections it has the more efficient is the teaching.

Many teachers know in theory the principle of apperception. Why do they not put it into practice in their teaching? Because it requires constant study and preparation. Things have to be thought about, and their relations have to be realized. Less effort on the part of the teacher is required to teach isolated facts to a class than to lead them gradually from one known truth to a truth that is unknown.

The teacher who wishes to put this excellent principle into practice in her school work, should always endeavor to stand in the plane of the pupil's experience and knowledge. With this as a starting point or point of contact,

she will be able to lead the children to new knowledge, new ideas, new thoughts, and new truths; and she will do it effectively.

An Example. As a striking example of the principle of apperception, every teacher should read and study the account of the Saviour's conversation with the Samaritan woman at Jacob's Well. It shows how the Great Teacher led this ignorant Samaritan woman to understand that He was the long-promised Messiah. He began by talking to her about water, with which she was familiar, and in which she was interested, as she was on her way to draw some water. After this, He led her step by step to grasp the great truth of His Messiahship. His method succeeded so well that this woman hurried to her own people and said, "Come, and see a Man Who has told me all things whatsoever I have done. Is He not the Christ?" This incident is recorded in the fourth chapter of the gospel of St. John.

The Principle of Concentration. It can be truthfully said that one of the special weaknesses of present-day teaching is that too many truths are attempted to be taught without sufficient concentration on any of them. In every lesson, there are matters of primary and secondary importance. By study and preparation, the teacher must know these. Otherwise she will naturally treat them all alike, so that in her effort to explain too many things she merely dissipates the minds of her pupils.

Were she to use the principle of concentration, she would so prepare and present the lesson to her class that

one main truth would make the chief impression on the minds of her pupils, and everything else would hold a secondary place. In this manner, the children would be able to concentrate on the important matter.

Mental activity, we know, is most effective when it is limited to a narrow gauge. Concentration of attention leads to great vividness and usually to clearness and distinctness of experience. Thus the pupil carries away a lasting impression of the matter under consideration, and he makes sure progress in the work of education. Is not this a consummation devoutly to be wished?

The Principle of Correlation. It is well to bear in mind that various names have been given to this principle. One of the most common of these is "the principle of association." This principle has been defined as "the act or process of putting a number of truths or facts into proper relation with the truth or fact to be learned."

When you know a person well, you generally know something about his relations. So it is in education. When you know a fact or a truth well, you must necessarily know the things that are related to the fact or the truth.

We know, however, that the principle of correlation can be, and has been, carried to extremes. The abuse of a thing does not detract from its utility. "Correlation," says Henderson, "enables the child to comprehend better the meaning and bearings of what he studies. The

more thorough the correlation, the richer the intension of the ideas that are presented. Without correlation, study is irrational, wooden. It becomes a mere appeal to mechanical memory. The proper interrelation of the material of instruction makes it intelligible, more easily memorized and retained, and more significant. In the second place, correlation is held to make study interesting, for it connects the work of the lesson with what the child already knows and is interested in. To find in the new, the familiar, is ever a source of pleasure. Correlation, furthermore, makes the application of the knowledge gained in school far more easy to practice. It cultivates the tendency to think, and facilitates the recall of resources to sustain the thinking process."

Any teacher can readily see that history and geography may be and ought to be correlated so that the children will be helped in the study of one by what they know of the other. Supposing the pupils of an eighth grade read a paragraph telling them when and where Washington took command of the American army. If these children lived near enough to this historical spot in the city of Cambridge, would not a visit to this famous place help them to get a clearer idea of this historical fact? There is no doubt about it. Moreover, the study of Bible History, Church History, and the Catechism should go hand in hand. One throws light on the others. They must be correlated if teachers wish to do efficient work in Christian doctrine. So it is with other branches of the curriculum.

FOR FURTHER STUDY

1. Trace the development of the principles of education.
2. Show how they are especially helpful to the teacher.
3. What textbook on the principles of education treats the subject most sanely?
4. Why do some educationists treat this subject under "method"?

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XX

ORDER OF DEVELOPMENT

IN the education of a child, there is a natural order by which his faculties or powers are developed. A knowledge of this order is of the greatest importance to teachers, especially those of the elementary schools. To simplify this matter as far as possible, we will treat the natural order of faculty-development under the following educational maxims :

1. *Observation before Reasoning.* Little children especially learn chiefly through observation. They seldom stop to think of the elephant they saw at the park or the fish they saw in the aquarium. They may have seen a blind man led around by a dog. They observe the picture, but they give little time to reasoning about it. Watch a class of first graders at a movie show. There is not a particle of doubt but that they enjoy the picture. Occasionally they give evidence that they do a little thinking, particularly when the hero is in danger. They actually shout to him to look out. Far be it from us to say that even first graders should not be taught to reason and think. We merely insist that in the natural order of the development of the faculties observation comes before reasoning. This shows the importance of teaching little children to observe the things about them.

2. *The Concrete before the Abstract.* Just as practically all teachers give considerable time to objective teaching in the primary grades so they generally ought to give a concrete example of a thing before they attempt to teach the abstract. Have you ever watched a little child investigating things? He first learns to recognize objects and afterwards he begins to grasp the qualities of the object. He begins with the concrete and then goes to the abstract. This is the natural way for the teacher to proceed. It is also most important not to go too quickly from the object to the qualities of the object. Little minds proceed rather slowly at first. Quality rather than quantity should be the teacher's motto.

3. *Sense Knowledge before Thought Knowledge.* This maxim is very like the first one explained. It views the subject of education from a different angle. It tells us that the knowledge that children derive from the different senses should be utilized before the knowledge they get from thinking. For little pupils the senses are a better criterion than their thinking powers. Children oftentimes think the most outlandish things simply because their thinking faculties are not sufficiently developed. The most beautiful thought does not make one-half the impression on a child's mind that a highly colored picture does. This is why sense training is insisted upon in the primary grades.

4. *Facts before Definition.* Many teachers remember that they oftentimes had to study definitions before facts. This was especially so in religion, geography, and

grammar. Such a method is inefficient and wasteful. When the pupils get the facts first they will find little difficulty in mastering the definition. Take, for example, the definition of an island: a portion of land entirely surrounded by water. It is possible that many children might readily memorize this definition and derive very little meaning from it. But supposing that we take the children to see an island, show them the land and the water all around, they will readily tell you what an island is without learning the cut-and-dried definition. Facts tend to make the lesson interesting. It becomes more than a test of memory. This is particularly so in the teaching of religion.

5. *Processes before Rules.* Were you teaching your children how to do long division, you would not begin by giving them the rules by which the work is done. On the contrary, you would first of all teach them the process. When they knew this well, you would lead them to a knowledge of the rules. This is the natural way. So it is with other operations. Teach the process before you teach the rules.

6. *From the Particular to the General.* A child generally gets his knowledge from particulars. If there happens to be a dog or a cat in the house, he gets his knowledge from these individuals. Then when you mention the word "cat" he immediately thinks of his own cat, but not of the word "cat" in general. His knowledge then is particular. It is only after he has seen a number of different cats that he will begin to grasp the general

conception of "cat." In this, as well as in other matters, he goes from the particular to the general.

7. *From the Simple to the Complex.* As the teacher begins with a simple sentence and in the course of time leads the pupils to a knowledge of the complex and the compound sentences, so she should begin her school work with simple things and gradually lead the children to more complex situations. Listen to the best story tellers. How do they proceed? Usually they use the simplest incidents at first: something that little minds can readily grasp. The sentences are not noted for beautiful descriptive adjectives or expressive adverbs. Younger children are not generally impressed by such diction. They want something that is simple. They do not care what kind of doll it is. It is a doll, and that is all about it. But as they make progress in their studies, the teacher will be able to lead them from what is simple to what is complex.

8. *From the Known to the Related Unknown.* Teachers have heard of this important maxim hundreds and hundreds of times, and yet many of them forgot it in the course of their school work. The mother utilizes this educational maxim when she holds an object before her child and tells him, "This is a ball;" or "This is an apple." She goes from the known object to the related spoken symbol, just as the teacher a few years later goes from the known object to the related printed symbol. This is perhaps the most important of all the maxims mentioned heretofore. It is far-reaching in its conse-

quences. It is almost indispensable in primary grade work.

FOR FURTHER STUDY

1. Do you think that we lack clearness in our conceptions of the earlier stages of mental life?
2. Be prepared to discuss the educational maxim "Observation before reasoning."
3. What do you consider the most important educational maxim in the foregoing chapter? Why?
4. Why do so many teachers fail to live up to these educational maxims?
5. Do you know of other maxims that should have been included in this chapter?

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XXI

THE DOCTRINE OF INTEREST

Its Usefulness. Experience has shown that children of various ages have different impulses and interests. The little boy in the first grade is delighted with his pets, his playthings, and his childish games. These same things would have little interest for a pupil in the seventh or the eighth grade.

It is an undoubted fact that the teacher who has the ability to interest her pupils in the class work has a marked advantage over the teacher who does not possess that gift. It is undeniable, moreover, that the children who are interested in what is being taught make much better progress in the work of education than those who are daydreaming and woolgathering. These and other facts show how important it is that the teacher should be able to interest her pupils in the work of the class.

Interest Classified. Within recent years, much consideration has been given to the matter of interests. They have been studied, organized, and classified with a view to using them in arousing and stimulating the mental activity of pupils in the different grades.

Educationists tell us that interests may be either objective or subjective. Objective interests are always attached to something, such as an auto, a radio, an air-

plane, etc. Subjective interests pertain to the feeling of a person as he beholds some object of interest. The subjective interest is a feeling within the person; the objective interest is always found in an object.

When the teacher interests her pupils in a reading or a history lesson, they naturally pay strict attention. Their minds are concentrated on what is being said or done. They think of that alone. It is a source of pleasure to them. It impresses them. It promotes mental activity. It educates them.

Go into some classrooms and you will find pupils who are not at all interested in what is being done. Many of them are thinking about something else, and some of them are merely building castles in the air, or giving trouble to the teacher. These are making little progress in their school work. They are wasting precious moments of their lives.

The Abuse of Interests. Like many other good things, interests may be abused. If the teacher is governed entirely by the wishes of her pupils, she is not using interests in the right way. While it is perfectly proper to take into account the impulses and instincts of the pupils, it is also absolutely necessary to guide and lead them to better things. Children do not always know what is best for them. The mother will not give her infant the sharp knife for which he is crying. Neither should the teacher give the pupils everything that they desire.

Teachers, moreover, sometimes use artificial devices to get the attention of their pupils. They seem to amuse

rather than instruct. They act more like comedians than teachers. In such cases, it sometimes happens that the pupils become more engrossed in the devices used than they are in the matter taught. This, of course, is very objectionable from an educational standpoint.

The Effects of Interest. Interests generate effort or concentrated attention. They cause the pupil to put his mind on the matter being taught, and they stimulate him to strive for the end toward which he is working. Concentrated attention makes a deep impression on the mind — one that can be recalled at a moment's notice.

Interests cause the pupil to undertake whole-heartedly the work to be done. They cause him to think of the matter under discussion, and, if possible, to connect it with some experience in his life. They give a real personal touch to the work of education.

How to Arouse Interest. But now the question arises, "How can interests be aroused, and by what means are they best utilized in the work of the class?" In the first place, the method must be adapted to the mental ability of the children. It must be neither too difficult nor too easy. From infancy to seven years of age, objective and concrete things only have meaning for the child. This is called by some authorities the "presentative stage." From seven to twelve is called the "representative stage." This is the period in which the memory and the imagination have a prominent place in the work of education. Old objects of interest can be recalled to mind and new images constructed. This is

followed by the "reasoning stage," which generally comes to light between the ages of eleven and thirteen. The "thought stage," which follows, seeks the origin and the purpose of things.

Variety and Novelty. There is an old saying that variety is the spice of life. Be this as it may, there is no doubt but that variety is a most necessary element of interest, especially for children in the lower grades. After a short time, the little ones grow tired even of a toy. It is practically the same in school work. They are not able to concentrate their minds for any length of time on a particular subject. That is why periods of ten or fifteen minutes are used in the daily program.

The presentation of the same fact in the same way becomes monotonous to the children after a certain length of time. What is the result? The pupils lose interest in the work of the class, and they begin to dream and think of other things.

Many teachers ask this question, "How shall I vary the lesson, the drills, and the reviews in my class?" By getting right down to work and figuring it out for yourself. "How shall I present this lesson in a different way? How shall I vary the phonetic drill? How shall I change the manner of review?" It is not difficult. Concentrated study and thought will solve the difficulty. The more you try the easier it will become.

The principle of novelty is another means of securing interest. It requires the teacher to make her instructions as concrete as possible and to present the

problem or project of the lesson in a novel and practical manner.

Suppose the teacher is reviewing the lesson on Baptism, what is to prevent her from having one of the children show the class how the sacrament is administered? We have seen this tried in a fifth grade. One of the largest and strongest boys in the class took the smallest boy in his arms, while another pupil took a glass of water in his right hand and showed the members of the class how the holy water is poured on the head while the words are being said. This incident aroused the interest of every boy and girl in the class.

The Teacher's Attitude. Another means of arousing interest is the teacher's attitude toward the subject. If she lacks enthusiasm, the pupils will not be sufficiently aroused. She must cause the emotions that dwell within her own breast to inflame the hearts of her pupils. If she is intensely interested in the subject, if she shows that interest by word and act, the children, who are born imitators, will naturally grow interested in the lesson. They will generally catch the teacher's spirit.

Interest is furthermore aroused by motivation. The teacher leads the pupils to see the importance of knowing a certain subject. She shows how valuable it will be to them when they grow to be men and women. She gives them a reason for what they are doing. They then undertake the work not because they have to but because they want to do so. Thus interest is aroused.

These are a few of the most common ways of arousing

and stimulating interest in school work. Many other ways may be utilized with effect. The personality of the teacher, her clear and pleasant voice, her dignified bearing, her power of judgment in interpreting the signs of mental fatigue, her ability to tell a story in a simple, clear, and consecutive manner, her fund of graphic descriptions and illustrations, etc., have considerable to do in causing the child to concentrate his mind on the work of the class.

FOR FURTHER STUDY

1. Discuss the difference between "interest" and "attention" in the work of education.
2. Show the important place that interest has in the formation of character.
3. Is interest actually antagonistic to effort? Explain.
4. Why is it necessary to make a selection among our interests?
5. Show the connection between emulation and interest.
6. Enumerate the most important characteristics of interest.

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XXII

MOTIVES IN EDUCATION

Motives Utilized in All Ages. From the earliest ages down to the present time, motivation has had a place in practically all educational endeavor. Motives have prompted men and women in all times to do things noble and inspiring. Father Damien had a motive when he left home and friends to take care of the exiled lepers in the Hawaiian Islands. The missionaries have a very definite motive when they go to labor among the Chinese, the Japanese, and the inhabitants of Central Africa. In every walk of life, motives have had much to do with all that has been accomplished.

Realizing this, teachers and educators have brought into the work of the school motives and incentives which are capable of moving or inducing the pupils to study with eagerness. It is evident to all that pupils who have a motive to master any particular subject will accomplish a great deal more than those who are without any motive.

First Step. In the matter of motivating the work of the school, the most important thing for the teacher to do is to select the subject matter of the lessons in accordance with the needs of the pupils, and then show them that it is most useful and helpful to them; in other words, convince them that they need that subject matter.

Let us suppose that the pupils are about to begin the study of the multiplication table. As a preparation for this work, the teacher will show her pupils the necessity of learning these tables. She will lead them to realize that the tables are necessary for all men and women. She will give examples of how people have been cheated and imposed upon simply because they did not know how to multiply correctly. She will make it plain that multiplication is one of the four pillars on which arithmetic is founded.

Must Know Her Pupils. To motivate the school work of the class successfully, the teacher must study her pupils. She must know their ability, their likes and dislikes. She must be cognizant of the peculiar environments of the locality. She must be aware of the principal activities in which their parents are engaged. She must have some knowledge of their hopes and ambitions, for thus will she be able to connect the work of education with the experiences and the life of her pupils.

The course of study does not, as a rule, make provision for the special needs of the children of any particular locality. Nevertheless, the efficient and resourceful teacher, while following the course, will have opportunities to introduce things in accordance with the needs of the children. She will endeavor to harmonize the curriculum with the minds of the pupils.

A Wise Course. Children seldom rebel against any school work which they know is for their benefit. It is only when they cannot see the necessity of learning some-

thing in the curriculum that they become discouraged and make little or no effort to attend to the matter. For this reason, many teachers are in the habit of discussing with the pupils the importance of each branch, because they desire to give the children a real motive for mastering the subject.

The boy or girl in the sixth grade who knows how important the study of decimals is will undoubtedly undertake the work with more determination and vim than he otherwise would. Show the children that the study of decimal fractions is necessary in the business world. Make them realize that their work in the seventh and the eighth grades depends in a large measure on their mastery of decimal fractions, and you will give them a motive that will induce them to make extraordinary efforts.

Motives are generally based on the impulses or instincts of the pupils. That being so, the more the teacher knows about the various impulses of her pupils the better able she will be to motivate their school work.

Kinds of Motives. For little children in the primary grades, it will not do to depend too much on ideal motives such as religion, morality, culture, and character formation. In later years, these will induce and move the pupils to greater mental effort. Little children are naturally interested in material things. Playthings, pet animals, birds, rabbits, etc., engross their attention. They have a strong desire for money, and they are willing to strive very hard to win it. They like to be praised by the teacher. They wish to show their superiority over other

pupils. They are deeply interested in things to eat and to drink. They always want to exhibit whatever they do. They think that there is no one in the world so wonderful as their parents.

The giving of rewards, if used judiciously, has a tendency to make the pupils study. That is why premiums are so often given in some of our schools and Sunday schools. They have most undoubtedly a stimulating effect on the children. At best, however, they are not very worthy motives for study. It seems like paying the pupils for studying.

Another very common motive for inducing study and work is promotion. Some teachers use this incentive to very good advantage. They tell the boys and girls who do good work in their class that they will surely be promoted. After some time, all the children will be influenced more or less by this consideration.

Punishment as a Motive. Punishment is one of the lowest kinds of motives. The teacher may succeed in making the children do a certain amount of study, but it is generally done against their will. They are not interested in it, and from an educational standpoint it is most inefficient. Punishment has a tendency to engender spite and hatred. When these take possession of a boy or a girl, there is very apt to be trouble for the teacher and the pupil. To do efficient work in the classroom, the teacher must have the good will of her pupils. The more they admire and like her, so much the better will they work and study for her.

The resourceful teacher then will find no difficulty in supplying proper motives to induce the pupils to study and to master their lessons. In the selection of them, she must always be guided by the effects that the use of these motives will have in the character formation of her pupils.

FOR FURTHER STUDY

1. Discuss the result produced by motives in education.
2. Why are not all motives helpful in character formation?
3. In your opinion, what are a few of the most efficient motives in the work of education?
4. What do you think about premiums and punishments as motives in education?
5. Show that the principle of motivation can be applied to the common everyday school lesson.
6. Discuss: "Is motivation a panacea for all pedagogical ills?"

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XXIII

THE ART OF STUDY

A Deplorable Fact. Some years ago, we visited an eighth-grade classroom and asked the pupils for the meaning of the word "study." The various answers given by the members of this class convinced us that they had but a rather vague and imperfect idea of the connotation and denotation of the term. Some said that to study meant to memorize; others were of the opinion that it meant to read once or twice; others declared that it meant to get knowledge.

After nearly eight years in school, these pupils had learned but little about the art of study. They did not realize its importance in the work of education.

From reports made by numerous investigators, we learn that only a small percentage of the pupils of the elementary schools is taught how to study. Is it any wonder then that so many boys and girls find their home studies so difficult? Is it surprising that a large percentage of them is below the standard in scholarship?

It is actually deplorable to think of all the time and the energy that is wasted in wrong methods of study. This undoubtedly is one of the most serious imperfections in present-day education. It means uphill work for both the teacher and the pupils. The boy or the

girl who does not know how to study is like a person groping in the dark. After repeated attempts he may reach his destination.

The Viewpoints of Teachers. Is it not very strange that so little attention is paid to the matter of teaching the children how to study? Some teachers seem to act as if there were no occasion to instruct their pupils in this matter. Others will tell you that there is not sufficient time for such instruction; that they have more than enough to do to cover the program of studies for the grade. Such teachers do not realize that a knowledge of the art of study is one of the foundations of all progress in education, and that it saves valuable time and energy for the pupil and for the teacher.

The Meaning of Study. What then does the word "study" mean? In a general sense, it signifies "the mental process of assimilating knowledge." In a wider acceptation of the term, "it embraces all the activities of the mind that are engaged in the acquisition of ideas." A child in the act of learning a number of geographical definitions is studying. So, too, is the student who is endeavoring to the best of his ability to solve the problem, "Why did the United States take part in the Great War?" Some educators call the first example mechanical study, and the other they name logical study. Between these two kinds of study there is undoubtedly considerable difference.

In this chapter, we are not especially interested in purely mechanical study. We desire to deal chiefly with logical

study, which holds so important a place in the work of education.

Logical Study. In the analysis of logical study, you will find a number of factors or characteristics: (1) The pupil who studies must have a specific purpose in view so as to direct and limit his reading, observation, and thought. We can readily grasp how a boy who studies with a particular end in view will accomplish more educationally than the pupil who has no definite purpose. Take a number of girls striving for a scholarship. No work is too hard for them. Their efforts are almost super-human.

(2) Besides having a specific purpose, the pupil must collect facts that have a bearing on the subject. In the elementary school, the data are generally found in textbooks, but in the high school and in the college the students will be required to consult papers, magazines, textbooks, and books of reference to obtain the necessary facts to master a subject.

(3) After securing the facts, the pupil must organize them, that is, he must arrange and classify them in logical order. He must find out how intimately each fact is related to the central thought, and how valuable it is in completing the mental picture that the author desired the student to get.

(4) When the material has been classified, the pupil must weigh and evaluate the different facts and then pass judgment upon them. This is where purposeful thinking is brought into play. The mental activity of the

pupil is exercised, and his store of thought material is enriched. This factor of study is eminently educational.

The pupil who follows this outline will not find it very difficult to master the assigned lesson. Neither will he have much difficulty in committing to memory the chief thoughts contained therein.

A Mistaken Notion. Some school authorities have doubted whether children in the grammar grades are capable of studying. We know very well that they cannot set up and solve a problem or master a lesson as well as a grown student. Nevertheless, they are certainly capable of studying. Numerous investigations have proved this. The mind of even the first grader is not merely a storehouse of knowledge. Immature as he is, he can do some thinking. What is more, he can, and should, be taught how to study in his own little sphere; and this work should be continued during his entire course.

How They Learn to Study. In the lowest grades of the elementary school, the children learn how to study principally through imitation. The teacher during class leads them along the pathway of study, and the pupils naturally do as the teacher does. As the children grow older, the teacher directs and supervises their study. To do this efficiently, she must be a child once more. She must act as a child, feel as a child, and speak the thoughts of a child while teaching them how to study.

By the time the pupils have reached the fifth or sixth grade, they ought to be able to grasp and to utilize the

chief factors in the art of study. In the seventh and the eighth grades, the pupils will have little difficulty in comparing and in contrasting things, in searching out causes and effects, and perceiving relationship, and in valuing facts.

The art of study then should be taught all through the elementary school. It is not enough to tell the children at stated periods how to study, the teacher must direct and supervise daily the mental work of the pupils. A musician may show us how to play the piano, but it requires constant effort on our part to succeed. So a teacher may tell her pupils how to study, but it requires more than mere talk to master the art. It requires years of effort on the part of the pupils as well as the direction and supervision of the teacher.

A Way Suggested. How then shall an ordinary teacher instruct her pupils in the art of study? Shall she have a set time for that work, or shall she teach them how to study as she carries out her ordinary program? This work is best accomplished in connection with the teaching of the other branches of the curriculum. Take, for example, the teaching of primary reading. The teacher who insists that the pupils always get the thought of what they read is indirectly training them in the art of study. The same may be said of the geography teacher who makes her pupils see why so many great centers of industry are built along the banks of large rivers. In a word, the correct teaching of every branch of the curriculum affords opportunities for the gradual acquisition of the art of study.

The teacher then should show her pupils how to use the textbook, how to take and keep notes, how to read the material of the lesson, how to organize and classify facts, how to use reference books, how to find the central thought, how to gather material for the understanding of the lesson, how to weigh and value data, how to memorize economically, how to use the library, etc., for thus she will be developing their ability to do efficient study as well as preparing them for further schooling or for employment.

In order to encourage and help the children to study, give them a spirit of confidence and a strong motive ; have, if possible, a definite time for study ; as far as you can, do away with all obstacles to study ; lead them to recall what has gone before ; have them make a synopsis of the lesson ; teach them to read quickly and with a purpose, and give them ample practice in solving little problems.

To do all this successfully and efficiently, the teacher must have mastered the art of study. She must be acquainted with the experiences, the impulses, and the interests of her pupils. She must act as a guide and leader, but not as a taskmaster.

SUPERVISED STUDY

Room for Improvement. Wonderful progress has been made in our methods of education during the past fifty years. Wasteful and aimless teaching is not half so common as it used to be. Our teachers realize more fully

the nobleness of the art and the science of teaching. They are as a rule better prepared for their calling. They have a better knowledge of the nature of the children, and they accomplish more efficient work in the classroom.

Though we have made wonderful progress in our methods of education, we are still far from perfection. There is yet plenty of room for improvement. Suppose we were to ask the children in the higher grades of a grammar school, or even in a high school, to tell us the proper way to study, how many do you think would be able to do so? Would it be a majority or a minority of the pupils? How many of them have wasted hours of precious time in wrong and wasteful methods of study?

An Erroneous Assumption. Many teachers take for granted that the boys and girls in their class know how to study. This is a serious mistake. It is the duty of each teacher to make sure that her pupils know how to study. It is, in fact, a most important part of their education. The child who leaves grammar school or the high school without having learned how to study is handicapped in the battle of life.

To overcome this glaring defect of our present-day education, educators have proposed "supervised study." This name may be new to the teaching profession, but as a matter of fact, many teachers have for years directed the study of their pupils. Others have told them how to study, but did not take the time to see that the pupils mastered that art. They merely gave the theory with little or no practical application.

What It Means. Supervised study, however, means more than this. It signifies the act of showing children how to study and then directing or supervising the study period so that in time the pupils will master the art of study. It tells them what to do and shows them how to do it. It is practical as well as theoretical.

The Chief Factors. The chief factors in the organization of supervised study are: (1) the daily review, (2) the assignment, and (3) the study of the assignment. Let us now consider briefly these three factors.

The daily review consists in recalling the most important facts of the previous lesson to see whether the pupils have grasped the matter, and to act as a connecting link with the new assignment. In this review work, the teacher remains in the background as much as possible. Under her leadership, the pupils ask questions of each other. The review generally takes place at the beginning of the period, and the length of time devoted to it depends on circumstances.

The daily review is followed immediately by the assignment. The teacher develops the new lesson by pointing out the precise work to be studied and the best way to go about it. The pupils at the same time are endeavoring to grasp the important features of the lesson and to see how they are related to what they have already studied.

In studying the assignment, it is well to divide the class into three sections: the A, the B, and the C section, or the

superior, the average, and the inferior section. This necessitates three assignments differing according to the ability of the groups. The C, or inferior, group is asked to study only the minimum assignment; the B group is required to master the minimum and the average assignment; and the A group is expected to study the minimum, the average, and the superior or maximum assignment. By following this plan, you are able to take into account the ability of the individual pupil.

A Timekeeper. During the different parts of the supervised study period, one of the pupils is selected as timekeeper, so that neither the review, the assignment, nor the study of the assignment may be given more than the allotted time: 15 or 20 minutes for the review, 10 minutes for the assignment, and 20 or 25 minutes for the study of the assignment.

It can readily be realized that the teacher who undertakes the supervised study period must know not only how to study, but she must know how to teach her pupils to do so. She must know, furthermore, how to conduct the review, the assignment, and the study of the assignment so that the children may do efficient study and purposive thinking.

Such relationship between pupils and teacher as is required in supervised study cannot fail to foster and develop concentrated attention, and will, in the course of time, develop the brain power of the pupils to such an extent that they will be prepared to grapple with the great problems of life.

FOR FURTHER STUDY

1. Do you think that all studying by the pupils should be done in the school?
2. Compare "study" and "memorizing."
3. What is the best way to teach children how to study?
4. What percentage of elementary school children knows how to study?
5. What suggestions would you make regarding the teaching of children how to study?
6. Compare and contrast the supervised study period with the question and answer period.
7. What should be the teacher's aim in supervised study?
8. Should supervised study be found in all the grades of the elementary schools?
9. Do you think that supervised study teaches the children how to study and prepares them for the problems of life?

REFERENCES

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XXIV

SCHOOL MANAGEMENT

Different Meanings. In the past, various meanings have been given to the term "school management." According to some authors, it embraced everything that is directly connected with the school. In their works on the subject, the writers dealt with the construction of the schoolhouses, the size and the arrangement of the playground, the school furniture and apparatus, school hygiene, the selection and use of textbooks, the school library, the school records, etc.

The treatment in this chapter will not be so comprehensive. It will deal principally with the conduct of the pupils in the classroom. It will give a few of the many educational precepts and principles that have been culled from the practices of experienced and efficient teachers.

The chief persons concerned in school management are the teachers and the pupils. The teacher's principal endeavor will be to systematize and regulate the employments of the pupils so that they will be able to do the greatest amount of educative work in the most agreeable manner and in the shortest time.

Pleasant Surroundings. There is an old saying that tells us, "Well begun is half done." This is especially

true as regards the teacher making a good beginning the first day of school. How shall she make this favorable impression? What exactly has she to do? In the first place, she must have everything in readiness before the children enter. The classroom must have a homelike appearance. It must have an abundance of pretty board decorations, a supply of appropriate and interesting pictures, a number of potted plants, and some cut flowers. The American flag and the crucifix should occupy a prominent place. These will have a tendency at the very outset to make the pupils pleased with their surroundings.

The Teacher's Attitude. Everything in the classroom being in readiness, the teacher should be on hand bright and early to welcome the pupils and to endeavor to make them feel at home in their new surroundings. So much depends on the impression that she makes the first day. The new pupils generally come without any prejudices. They merely hope that she will be as good and as kind as last year's teacher; and one of the first things they do is to form a judgment regarding her.

Entrance and Exit. The entrance and the exit of the pupils from the classroom are an important matter in school management. It is especially so in large elementary schools in which nine or ten hundred pupils are on roll. The children of each class must act according to a certain order so as not to interfere with the progress of some other class. They must know their place in the filing line and they must be ready at a given signal. They must be trained to leave the classroom quickly and in

order, always making use of the two exits. They must be taught to enter the classroom quietly so as to disturb as little as possible those who are studying.

To some teachers this matter may appear rather trivial. As a matter of fact, it is not. Does it not train the children to move expeditiously and orderly? Does it not develop their power of self-control? Does it not prepare them for the monthly fire drill, or for any other emergency of the kind? In some schools, the children march out to the beat of the drum or to music. It is really inspiring to see them filing out in line formation. Their minds are on what they are doing, and they are doing it as well as they possibly can.

The Wraps of the Pupils. Another matter that needs particular attention is the disposition of the pupils' wraps. There seems to be no general agreement as to the way the pupils should go to and come from the dressing room. When this matter is not well regulated, there is likely to be much confusion and numerous opportunities for breaches of discipline. In every school, there should be a systematized way of getting wraps at the appointed time.

In some places, the hangers in the dressing room are numbered and each child gets his own. This is a very helpful arrangement, for each pupil knows exactly where to place and to get his clothes.

All the children should not go for their wraps at the same time. Experience proves that it is a wise plan for the teacher to stand at the classroom door while the pupils

pass out in groups of seven or eight. In this way, she can see the children in the classroom and in the dressing room. Thus her management is more efficient.

Some teachers have the children return to their room while others have them form in line in the corridor. From personal experience, we should say that the former way is the better.

Movements in the Classroom. Oftentimes the movement of the pupils in the classroom is the cause of much unnecessary noise and confusion. This, too, needs to be regulated if we wish the children to do good work. The passing out of textbooks, the collecting of papers, etc., can be done expeditiously and orderly. It takes time however to form these habits, and it requires patience and perseverance on the part of the teacher. Some teachers have the custom of giving the textbooks to the first pupil in each row. Then they are passed back to the pupils behind without any one's leaving his or her seat. The same practice may well be followed in the giving out and the collecting of papers.

Hygienic Conditions. The management of the pupils is made easier by the hygienic condition of the classroom. The space occupied by the children should be well ventilated, and neither too hot nor too cold. A temperature of 68 degrees is considered most desirable. In such environment, the pupils can do better work and can do it with more comfort. A poorly ventilated room has a deadening effect on the mental activity of the pupils. It renders them lazy and inattentive, and gives them an

opportunity to disturb the quietness of the classroom. In addition to this, it is necessary to train the children to take a correct sitting position, for incorrect sitting positions have the effect of bringing about fatigue, nervousness, and irritability.

In all this work of habit formation, it is important to lead the pupils to see the necessity of these regulations; for when they realize that it is for their advantage to do things in a certain way, they will more readily and more easily become habituated to that way of acting. They will have more incentive to do what the teacher tells them.

Placing the Children. It is well known that the general who knows how to place his men in the most advantageous position on the battlefield will accomplish the most efficient work when the attack begins. So it is with the teacher who knows how to dispose her pupils in the classroom so that the best conditions for mental activity and study will result. During the first few days of school she will get an idea of her children with a view to placing the doubtful ones in a position where she can see them at all times. She should be careful not to let any of the pupils know that she does not trust them.

In the course of a few weeks, when the teacher becomes familiar with the mental ability of her pupils, she will be able to classify them into first and second divisions so as to economize time and labor and to make her teaching more effective. This classification will have the effect of stimulating many of the pupils. Most of

those in the second division will make a greater effort to master the work of the class so as to be placed in the first division.

The Need of Recreation. "All work and no play makes Jack a dull boy." There is considerable meaning in this familiar saying. Children in the elementary school especially need recreation to reinvigorate their fatigued minds. There should be two recess periods of 10 or 15 minutes each, one in the morning and one in the afternoon. When possible, these recesses should be taken outside the confines of the classroom, especially in a suitable playground. After five or ten minutes of earnest play, the pupils are rested and refreshed, and are ready to enter into the work of the class with renewed effort.

The teacher should make the children feel that a certain order in going to and coming from the school has to be observed. When this is thoroughly understood, there will be little or no difficulty in managing the class during recess.

The teacher, too, must know all about the games that boys and girls play, and she must be willing and ready to decide disputed points and to take an interest in their contests.

Three other matters of paramount importance are always included in an article treating the subject of school management. These are "The Daily Program," "Attendance," and "Discipline." For several reasons, we have decided to discuss each of these separately in the following chapters.

FOR FURTHER STUDY

1. What would you include under "school management"?
2. Discuss, "As the teacher so is the school."
3. What are your views on the matter of physical exercise and recess?
4. What do you consider the best way to dismiss your pupils?
5. How do you conduct "fire drills"?

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"A New School Management," by Seeley.
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XXV

THE DAILY PROGRAM

Difficult to Make. The making out of the daily program is a much more complex matter than the regulating of the movements of the children and of the handling of materials. In the organization of the day's work, we are called upon to decide the relative value of the different studies as well as to determine the order in which they will occur. No teacher can fully realize what a piece of work it is until she has had the experience of making out a daily program for herself. Apparently it is a simple matter, but in reality it is more difficult than it looks. It has to provide for instruction in all the branches that are required in the course; it has to take into account the inspirational and the informational subjects with a view to allotting to each its proportional share of time; it has to take cognizance of the fatiguing subjects so that no two of them might follow each other; it has to be worked out in keeping with the best principles of education; and, finally, it has to take into consideration the fact that the teacher deals with the pupils not individually, but in groups.

To be more specific, the time to be allowed for each subject has to be decided. This has to be compared with the amount of work to be covered in the school year. In

this way, an idea of the amount of work to be done in a week, and the number and duration of the recitations and the study periods can be reached. Moreover, the matter of the pupils' energy throughout the morning and afternoon session has to be duly considered. Last, but not least, provision has to be made for recess and recreation.

Unanimity Needed. At present there is no determined time for each study throughout the whole country. In many cities, the minutes to be devoted to each subject of the curriculum are arbitrarily portioned out by the teacher. In other localities, the superintendent and officials of the school district decide upon the program that is to be followed. In a number of dioceses, where the school system has been well organized, a provisional program is followed. This approximate time schedule gives the number of minutes a week allotted to each study and exercise. In other dioceses the different teaching communities have their own daily programs. What is especially needed at present is a country-wide agreement regarding the approximate time to be allowed for each subject of the curriculum.

Teachers have between thirty and forty weeks of school in which to complete the year's work. The children come to class at 9 and are dismissed at 3 or 3:30. This allows for a five-hour school day. There is, however, a tendency to increase the time to six hours, especially in country schools, so that the teachers may have more time to devote to supervised study and for outdoor nature study.

Boston's Schedule. In the archdiocese of Boston the following time schedule is used. It gives approximately the aggregate time in minutes a week for the different subjects of the curriculum :

Grades . . .	1	2	3	4	5	6	7	8
Opening and Closing Exercises	60	60	60	60	60	60	60	60
Religion . . .	150	150	150	180	180	180	180	180
Reading and Literature . . .	540	480	400	200	180	180	150	140
Spoken and Written English	230	200	200	300	300	250	270	250
Penmanship . .	80	80	80	100	100	90	90	90
Arithmetic . .	100	210	210	210	230	220	230	230
History . . .	..	..	..	50	50	120	120	150
Geography . .	..	..	80	130	130	130	150	150
Music	60	60	60	60	60	60	60	60
Drawing . . .	100	80	80	80	80	80	60	60
Physiology and Hygiene . .	30	30	30	30	30	30	30	30
Physical Exercises and Recess	150	150	150	100	100	100	100	100
Totals	1500	1500	1500	1500	1500	1500	1500	1500

Pittsburgh's Schedule. In the diocese of Pittsburgh, the following time schedule is in operation :

Grades	1	2	3	4	5	6	7	8
Religion . . .	250	250	250	250	200	200	150	150
English . . .	230	230	230	230	250	250	270	270
Reading . . .	420	420	345	235	205	200	200	200
Arithmetic . .	200	200	200	275	250	200	140	200
Algebra . . .	..	..	..	..	..	..	60	60

Geography . . .	..	..	75	100	125	150	150	100
History . . .	..	..	30	40	..	80	135	135
Drawing . . .	100	100	100	90	90	90	90	90
Physiology - Hy-								
giene . . .	50	50	50	40	40	40	40	40
Science . . .	50	50	50	30	30	30	30	40
Civics . . .	..	..	..	20	20	20	20	40
Vocal Music .	100	100	100	100	100	100	100	60
Recess . . .	100	100	100	100	100	100	100	100

The Time Schedule in Cleveland. It may be helpful to contrast the foregoing time schedules with those used in the public schools. In Cleveland, Ohio, the following is used :

Grades . . .	1	2	3	4	5	6	7	8
Opening Exercise	50	50	50	25	25	25	25	25
Reading . . .	500	500	440	310	255	215	240	240
Spelling . . .	75	100	125	100	80	75	75	75
Grammar . . .	..	..	..	..	..	..	160	160
Language . . .	125	150	125	165	190	190	40	40
Writing . . .	75	100	100	100	90	75	75	50
Arithmetic . .	60	215	225	240	225	245	225	250
History . . .	..	..	30	40	..	80	135	135
Geography . .	..	..	45	160	200	200	90	90
Music . . .	75	85	85	85	80	80	80	80
Drawing . . .	75	75	75	75	90	90	90	90
Manual Training	50	50	50	50	60	60	100	100
Physiology - Hy-								
giene . . .	15	15	15	30	30	30	30	30
Physical Train-								
ing . . .	100	85	60	60	60	60	60	60
Recess . . .	..	75	75	75	75	75	75	75

Newark's Time Schedule. In the schools of Newark, New Jersey, the appended time schedule is followed:

Grades . . .	1	2	3	4	5	6	7	8
Opening Exercise	75	75	75	75	75	75	75	75
Reading . . .	600	480	430	290	280	170	150	150
Spelling . . .	75	75	75	75	75	75	75	75
Grammar . . .	..	..	..	..	60	60	60	60
Language . . .	150	150	150	150	100	100	100	120
Writing . . .	60	60	60	60	60	60	40	..
Arithmetic . .	100	240	240	240	240	240	240	300
History-Civics .	..	..	..	30	30	150	150	200
Geography . .	..	..	..	150	150	150	150	..
Science-Hygiene	30	30	30	30	30	30	30	60
Music	60	60	60	60	60	60	60	60
Drawing . . .	60	60	60	60	60	60	60	60
Manual Train- ing	60	60	60	60	60	60	90	90
Physical Train- ing	60	60	60	60	60	60	60	60
Unassigned . .	45	25	35	35	35	25	35	65
Recess	75	75	75	75	75	75	75	75

Things to Remember. Realizing the subjects to be taught in the elementary school and the amount of time to be devoted to each of them, the next matter of importance is the order of studies. It is evident that some subjects are more trying on the pupils than others, and that the ability of the children to apply themselves varies at different periods of the day. The difficult subjects then should come at a time when pupils are freshest, and the easy subjects, when they are more or less tired.

Relying on the investigations that have been made, the morning hours are somewhat better than the afternoon hours for intensive work. That being so, the subjects requiring most mental energy should as a rule be taught in the morning. The subjects according to their fatiguing effects are as follows: Gymnastics, mathematics, foreign languages, grammar, composition, spelling, writing, history, geography, reading, nature study, drawing, and singing. To place these subjects in an order that will bring about the least amount of fatigue on the part of the pupils and at the same time keep them interested in their work is the principal aim in the construction of a daily program.

Program making is rendered still more difficult by the fact that even in a grade school there are at least two or three sections in a class. If it be a rural school in which there are several grades in a room, the work is still more complex and difficult.

There is another matter that needs special attention when constructing a program, and that is the amount of time to be given to each lesson. As a general rule, the ten and the fifteen minute periods should predominate in the primary grades. As the children gain intellectual power and ability, the periods may be extended gradually to forty-five minute periods in the seventh and eighth grades.

As heretofore stated, the arrangement of the recess periods should be at a time when the pupils most need rest and recreation, and when it is not followed immedi-

ately by writing or drawing, — studies needing muscular coördination.

A Detailed Program. The following programs now being used in an up-to-date and progressive parish school will be helpful to teachers and principals who have to make up daily programs for their own schools. They are not perfect by any means. They are given here as a type of the kind of daily programs followed in Catholic schools. You will observe that according to these programs the class is divided into two, three, or four sections, and that the recitation periods vary in the different grades. In no case, are they too long to bring on fatigue.

These programs are built upon the approximate time-schedule for the schools of the archdiocese of Boston. Notice particularly that religion is to be correlated with every possible study. This is why religion is given a little less time than the time schedule requires. The letter "R" in the programs stands for the recitation period, and the letter "S" stands for the study period.

GRADE I

TIME	DURATION	"A" DIVISION		"B" DIVISION		"C" DIVISION		"D" DIVISION	
		<i>Subject</i>		<i>Subject</i>		<i>Subject</i>		<i>Subject</i>	
A.M.		9:00-9:05...	5 Opening Exercise...	Opening Exercise...	Opening Exercise...	Opening Exercise...	Opening Exercise...	Opening Exercise	
		9:05-9:20...	15 Religion	Religion	Religion	Religion	Religion	Religion	
		9:20-9:30...	10 Phonetics	Phonetics	Phonetics	Phonetics	Phonetics	Phonetics	
		9:30-9:35...	5 Sight Words	Sight Words	Sight Words	Sight Words	Sight Words	Sight Words	
		9:35-9:50...	15 Reading	Word Building	Splint Work	Splint Work	Splint Work	Number Building	
		9:50-10:05...	15 Number Building	Reading	Word Building	Word Building	Word Building	Splint Work	
		10:05-10:20...	15 Recess and Phys. Ex.	Recess and Phys. Ex.	Recess and Phys. Ex.	Recess and Phys. Ex.	Recess and Phys. Ex.	Recess and Phys. Ex.	
		10:20-10:35...	15 Oral Numbers	Oral Numbers	Oral Numbers	Oral Numbers	Oral Numbers	Oral Numbers	
		10:35-10:50...	15 Language Games	Language Games	Language Games	Language Games	Language Games	Language Games	
		10:50-11:05...	15 Splint Work	Number Building	Reading	Reading	Reading	Word Building	
		11:05-11:20...	15 Word Building	Splint Work	Number Building	Number Building	Number Building	Reading	
		11:20-11:25...	5 Hygiene	Hygiene	Hygiene	Hygiene	Hygiene	Hygiene	
		11:25-11:35...	10 Stories	Stories	Stories	Stories	Stories	Stories	
		11:35-11:45...	10 Closing Exercise	Closing Exercise	Closing Exercise	Closing Exercise	Closing Exercise	Closing Exercise	
P.M.		1:30-1:35...	5 Opening Exercise...	Opening Exercise...	Opening Exercise...	Opening Exercise...	Opening Exercise...	Opening Exercise	
		1:35-1:45...	10 Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	
		1:45-1:55...	10 Music	Music	Music	Music	Music	Music	
		1:55-2:10...	15 Writing	Writing	Writing	Writing	Writing	Writing	
		2:10-2:20...	10 Recess and Phys. Ex.	Recess and Phys. Ex.	Recess and Phys. Ex.	Recess and Phys. Ex.	Recess and Phys. Ex.	Recess and Phys. Ex.	
		2:20-2:30...	10 Sense Training	Sense Training	Sense Training	Sense Training	Sense Training	Sense Training	
		2:30-2:45...	15 Phonetics	Phonetics	Phonetics	Phonetics	Phonetics	Phonetics	
		2:45-2:55...	10 Oral Language	Oral Language	Oral Language	Oral Language	Oral Language	Silent Reading	
		2:55-3:05...	10 Silent Reading	Silent Reading	Silent Reading	Silent Reading	Silent Reading	Oral Language	
		3:05-3:15...	10 Drawing	Drawing	Drawing	Drawing	Drawing	Drawing	
		3:15-3:25...	10 Reading ¹ or Dram. ²	Reading ¹ or Dram. ²	Reading ¹ or Dram. ²	Reading ¹ or Dram. ²	Reading ¹ or Dram. ²	Reading ¹ or Dram. ²	
		3:25-3:35...	10 Closing Exercise	Closing Exercise	Closing Exercise	Closing Exercise	Closing Exercise	Closing Exercise	

¹ Reading: Monday, Wednesday, and Friday.² Dramatization: Tuesday and Thursday.

Religion and Patriotism to be correlated with every possible study.

GRADE II				
"A" DIVISION		"B" DIVISION		"C" DIVISION
PERIOD	DURATION	Subject		Subject
A.M.				
9:00-9:05.....	5	Opening Exercise.....	Opening Exercise.....	Opening Exercise
9:05-9:30.....	25	Religion.....	Religion.....	Religion
9:30-9:40.....	10	Mental Arithmetic.....	Mental Arithmetic.....	Mental Arithmetic
9:40-9:50.....	10	Written Arithmetic.....	Written Arithmetic.....	Silent Reading
9:50-10:00.....	10	Silent Reading.....	Silent Reading.....	Board Arithmetic
10:00-10:10.....	10	Board Work.....	Board Work.....	Written Arithmetic
10:10-10:20.....	10	Recess and Phys. Ex.	Recess and Phys. Ex.	Recess and Phys. Ex.
10:20-10:35.....	15	Phonetics.....	Phonetics.....	Phonetics
10:35-10:50.....	15	Reading.....	Spelling Building.....	Table Building
10:50-11:05.....	15	Table Building.....	Reading.....	Spelling Building
11:05-11:20.....	15	Spelling Building.....	Table Building.....	Reading
11:20-11:35.....	15	Writing.....	Writing.....	Writing
11:35-11:40.....	5	Hygiene.....	Hygiene.....	Hygiene
11:40-11:45.....	5	Closing Exercise.....	Closing Exercise.....	Closing Exercise
P.M.				
1:30-1:35.....	5	Opening Exercise.....	Opening Exercise.....	Opening Exercise
1:35-1:50.....	15	Oral Language.....	Oral Language.....	Oral Language
1:50-2:00.....	10	Music.....	Music.....	Music
2:00-2:05.....	5	Recess.....	Recess.....	Recess
2:05-2:15.....	10	Reading.....	Sentence Building.....	Written English
2:15-2:25.....	10	Written English.....	Reading.....	Sentence Building
2:25-2:35.....	10	Sentence Building.....	Written English.....	Reading
2:35-2:50.....	15	Spelling.....	Spelling.....	Spelling
2:50-3:05.....	15	Phon. ¹ or Dram. ²	Phon. ¹ or Dram. ²	Phon. ¹ or Dram. ²
3:05-3:20.....	15	Drawing.....	Drawing.....	Drawing
3:20-3:30.....	10	Reproduction.....	Reproduction.....	Reproduction
3:30-3:35.....	5	Closing.....	Closing.....	Closing

¹ Phonetics: Monday, Wednesday, and Friday.

² Dramatization: Tuesday and Thursday.

Religion and Patriotism correlated with every possible study.

GRADE III

PERIOD	DURATION	"A" DIVISION		"B" DIVISION	
		<i>Subject</i>	<i>Subject</i>	<i>Subject</i>	<i>Subject</i>
A.M.					
9:00-9:05	5	Opening Exercise	Opening Exercise	Opening Exercise	Opening Exercise
9:05-9:30	25	Religion	Religion	Religion	Religion
9:30-9:40	10	Mental Arithmetic	Mental Arithmetic	Mental Arithmetic	Mental Arithmetic
9:40-10:00	20	Written Arithmetic	Written Arithmetic	Board Arithmetic	Board Arithmetic
10:00-10:20	20	Board Arithmetic	Board Arithmetic	Written Arithmetic	Written Arithmetic
10:20-10:30	10	Music	Music	Music	Music
10:30-10:40	10	Recess and Physical Exercise	Recess and Physical Exercise	Recess and Physical Exercise	Recess and Physical Exercise
10:40-10:50	10	Phonetics	Phonetics	Phonetics	Phonetics
10:50-11:10	20	Reading (R)	Reading (R)	Written English	Written English
11:10-11:30	20	Written English	Written English	Reading (R)	Reading (R)
11:30-11:40	10	Oral Language	Oral Language	Oral Language	Oral Language
11:40-11:45	5	Closing Exercise	Closing Exercise	Closing Exercise	Closing Exercise
P.M.					
1:30-1:35	5	Opening Exercise	Opening Exercise	Opening Exercise	Opening Exercise
1:35-1:50	15	Spelling	Spelling	Spelling	Spelling
1:50-2:05	15	Geography	Geography	Geography	Geography
2:05-2:25	20	Writing	Writing	Writing	Writing
2:25-2:30	5	Physiology and Hygiene	Physiology and Hygiene	Physiology and Hygiene	Physiology and Hygiene
2:30-2:35	5	Recess and Physical Exercise	Recess and Physical Exercise	Recess and Physical Exercise	Recess and Physical Exercise
2:35-2:50	15	Oral Language (R)	Oral Language (R)	Silent Reading (S)	Silent Reading (S)
2:50-3:05	15	Silent Reading (S)	Silent Reading (S)	Oral Language (R)	Oral Language (R)
3:05-3:30	25	Drawing ¹ or Dramatization ²	Drawing ¹ or Dramatization ²	Drawing ¹ or Dramatization ²	Drawing ¹ or Dramatization ²
3:30-3:35	5	Closing Exercise	Closing Exercise	Closing Exercise	Closing Exercise

¹ Drawing: Monday, Wednesday, and Friday.² Dramatization: Tuesday and Thursday.

Religion and Patriotism correlated with every possible study.

GRADE IV						
PERIOD	DURATION	"A" DIVISION		"B" DIVISION		
		A.M.	Subject	Subject		
9:00-9:05	5		Opening Exercise.	Opening Exercise		
9:05-9:30	25		Religion.	Religion		
9:30-9:40	10		Mental Arithmetic.	Mental Arithmetic		
9:40-10:00	20		Written Arithmetic.	Board Arithmetic		
10:00-10:20	20		Board Arithmetic.	Written Arithmetic		
10:20-10:30	10		Music.	Music		
10:30-10:40	10		Recess and Physical Exercise.	Recess and Physical Exercise		
10:40-10:55	15		Reading (R).	Geography (S)		
10:55-11:10	15		Geography (S).	Reading (R)		
11:10-11:25	15		Geography (R).	Reading (S)		
11:25-11:40	15		Reading (S).	Geography (R)		
11:40-11:45	5		Closing Exercise.	Closing Exercise		
P.M.						
1:30-1:35	5		Opening Exercise.	Opening Exercise		
1:35-1:50	15		Written English.	Grammar		
1:50-2:05	15		Grammar.	Written English		
2:05-2:20	15		Spelling.	Spelling		
2:20-2:25	5		Recess and Physical Exercise.	Recess and Physical Exercise		
2:25-2:35	10		History.	History		
2:35-2:40	5		Physiology and Hygiene.	Physiology and Hygiene		
2:40-3:00	20		Reading or Oral English.	Reading or Oral English		
3:00-3:30	30		Writing ¹ or Drawing ² .	Writing ¹ or Drawing ²		
3:30-3:35	5		Closing Exercise.	Closing Exercise		

¹ Writing: Monday, Wednesday, and Friday.

² Drawing: Tuesday and Thursday.

Religion and Patriotism correlated with every possible study.
Sewing after school.

GRADE V			"A" DIVISION		"B" DIVISION	
			<i>Subject</i>		<i>Subject</i>	
PERIOD	DURATION	A.M.				
9:00-9:05	5	.....	Opening Exercise	.....	Opening Exercise	.....
9:05-9:30	25	.....	Religion	.....	Religion	.....
9:30-9:40	10	.....	Mental Arithmetic	.....	Mental Arithmetic	.....
9:40-10:00	20	.....	Written Arithmetic	.....	Board Arithmetic	.....
10:00-10:20	20	.....	Board Arithmetic	.....	Written Arithmetic	.....
10:20-10:30	10	.....	Recess and Physical Exercise	.....	Recess and Physical Exercise	.....
10:30-10:40	10	.....	Music	.....	Music	.....
10:40-10:55	15	.....	Reading (R)	.....	Geography (S)	.....
10:55-11:10	15	.....	Geography (S)	.....	Reading (R)	.....
11:10-11:25	15	.....	Geography (R)	.....	Reading (S)	.....
11:25-11:40	15	.....	Reading (S)	.....	Geography (R)	.....
11:40-11:45	5	.....	Closing Exercise	.....	Closing Exercise	.....
1:30-1:35	5	.....	Opening Exercise	.....	Opening Exercise	.....
1:35-1:50	15	.....	Grammar	.....	Written English	.....
1:50-2:05	15	.....	Written English	.....	Grammar	.....
2:05-2:10	5	.....	Recess and Physical Exercise	.....	Recess and Physical Exercise	.....
2:10-2:20	10	.....	History	.....	History	.....
2:20-2:30	10	.....	Spelling	.....	Spelling	.....
2:30-2:35	5	.....	Physiology and Hygiene	.....	Physiology and Hygiene	.....
2:35-3:05	30	.....	Reading or Oral English	.....	Reading or Oral English	.....
3:05-3:30	25	.....	Writing ¹ or Drawing ²	.....	Writing ¹ or Drawing ²	.....
3:30-3:35	5	.....	Closing Exercise	.....	Closing Exercise	.....

¹ Writing: Monday, Wednesday, and Friday.

² Drawing: Tuesday and Thursday.

Religion and Patriotism correlated with every possible study.
Sewing after school.

PERIOD	DURATION	GRADE VI	
		"A" DIVISION <i>Subject</i>	"B" DIVISION <i>Subject</i>
A.M.			
9:00-9:05.....	5	Opening Exercise.....	Opening Exercise
9:05-9:30.....	25	Religion.....	Religion
9:30-9:40.....	10	Mental Arithmetic.....	Mental Arithmetic
9:40-10:00.....	20	Board Arithmetic.....	Written Arithmetic
10:00-10:20.....	20	Written Arithmetic.....	Board Arithmetic
10:20-10:30.....	10	Recess and Physical Exercise.....	Recess and Physical Exercise
10:30-10:40.....	10	Music.....	Music
10:40-10:55.....	15	Reading (R).....	Geography (S)
10:55-11:10.....	15	Geography (S).....	Reading (R)
11:10-11:25.....	15	Geography (R).....	Reading (S)
11:25-11:40.....	15	Reading (S).....	Geography (R)
11:40-11:45.....	5	Closing Exercise.....	Closing Exercise
P.M.			
1:30-1:35.....	5	Opening Exercise.....	Opening Exercise
1:35-1:55.....	20	Grammar.....	Written English
1:55-2:15.....	20	Written English.....	Grammar
2:15-2:20.....	5	Recess and Physical Exercise.....	Recess and Physical Exercise
2:20-2:45.....	25	History.....	History
2:45-2:55.....	10	Spelling.....	Spelling
2:55-3:00.....	5	Physiology and Hygiene.....	Physiology and Hygiene
3:00-3:30.....	30	Writing ¹ or Drawing ²	Writing ¹ or Drawing ²
3:30-3:35.....	5	Closing Exercise.....	Closing Exercise

¹ Writing: Monday, Wednesday, and Friday.

² Drawing: Tuesday and Thursday.

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Sewing after school.

GRADE VII

PERIOD	DURATION	"A" DIVISION		"B" DIVISION	
		A.M.	Subject	Subject	
9:00-9:05	5		Opening Exercise	Opening Exercise	
9:05-9:30	25		Religion	Religion	
9:30-9:40	10		Mental Arithmetic	Mental Arithmetic	
9:40-10:00	20		Board Arithmetic	Written Arithmetic	
10:00-10:20	20		Written Arithmetic	Board Arithmetic	
10:20-10:30	10		Recess and Physical Exercise	Recess and Physical Exercise	
10:30-10:40	10		Music	Music	
10:40-10:55	15		Reading (R)	Geography (S)	
10:55-11:10	15		Geography (S)	Reading (R)	
11:10-11:25	15		Geography (R)	Reading (S)	
11:25-11:40	15		Reading (S)	Geography (R)	
11:40-11:45	5		Closing Exercise	Closing Exercise	

		P.M.	
1:30-1:35	5		Opening Exercise
1:35-1:55	20		Written English
1:55-2:15	20		Grammar
2:15-2:20	5		Recess
2:20-2:45	25		History
2:45-2:55	10		Spelling
2:55-3:00	5		Physiology and Hygiene
3:00-3:30	30		Writing ¹ or Drawing ²
3:30-3:35	5		Closing Exercise

¹ Writing: Monday, Wednesday, and Friday.

² Drawing: Tuesday and Thursday.

Religion and Patriotism correlated with every possible study.
Sewing after school.

GRADE VIII

PERIOD	DURATION	"A" DIVISION		"B" DIVISION	
		A.M.	<i>Subject</i>		<i>Subject</i>
9:00-9:05	5		Opening Exercise		Opening Exercise
9:05-9:30	25		Religion		Religion
9:30-9:40	10		Mental Arithmetic		Mental Arithmetic
9:40-10:00	20		Written Arithmetic		Board Arithmetic
10:00-10:20	20		Board Arithmetic		Written Arithmetic
10:20-10:25	5		Recess and Physical Exercise		Recess and Physical Exercise
10:25-10:50	25		History (R)		Written English
10:50-11:15	25		Music		History (R)
11:15-11:25	10		Spelling		Music
11:25-11:40	15		Closing Exercise		Spelling
11:40-11:45	5				Closing Exercise
P.M.					
1:30-1:35	5		Opening Exercise		Opening Exercise
1:35-1:55	20		Grammar (R)		Geography (S)
1:55-2:10	15		Geography (S)		Grammar (R)
2:10-2:25	15		Geography (R)		Geography (R)
2:25-2:55	30		Reading		Reading
2:55-3:25	30		Writing ¹ or Drawing ²		Writing ¹ or Drawing ²
3:25-3:30	5		Physiology and Hygiene		Physiology and Hygiene
3:30-3:35	5		Closing Exercise		Closing Exercise

¹ Writing: Monday, Wednesday, and Friday.

² Drawing: Tuesday and Thursday.

Religion and Patriotism correlated with every possible study.
Sewing after school.

A VIEW OF THE SUBPRIMARY

Our idea of a subprimary is something that will bridge over the chasm between the home and the work to be done in the first grade. In other words, it is a preparation for primary work.

As the children are usually under five years of age, we do not demand too much regular school work from them. For a short time, we make the life of the child in the subprimary as nearly like the home life as we possibly can. In this way the little tots take kindly to the teacher and the things done during the school hours.

Play, of course, enters into the work, especially little games which they already know. The teacher begins to develop the five senses by exercises such as building, matching, comparing different blocks or objects, forming designs with pegs or splints, paper cutting, the study of colors, drawing, telling objects blindfolded or with the eyes closed, from the sense of touch, recognition of different sounds, etc.

For physical exercises we utilize action songs, simple gymnastic exercises, walking of a chalk line, walking backwards, baby ball, jumping, running, hopping, etc.

For nature study we use plant and animal pets, teaching the pupils how to care for them.

For number work, we have the children count by object. This may be developed at the discretion of the teacher.

Prayers, hymns, memory gems, and nursery rhymes are taught to increase the child's vocabulary as well as to develop the memory. The first three may be used to convey germinal truths of our holy religion.

In addition to this, there should be story-telling, reproduction, and picture study. All this naturally leads to development, which is a most important part of the sub-primary.

The care of books and how to hold them, buttoning of coats, putting on rubbers, etc., should be taught.

FOR FURTHER STUDY

1. Why is a daily program necessary?
2. Why do daily programs differ so much?
3. Why is the making out of a daily program difficult?
4. What changes would you suggest in the daily programs given herein?
5. On what precisely does the daily program depend?
6. Should each teacher make out her own daily program? Why?

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"Art of School Management," by Baldwin.
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XXVI

SCHOOL ATTENDANCE

Regular and Irregular Attendance. Intimately connected with the successful management of the school is the regular attendance of the pupils; for irregular attendance disturbs the work of the class and retards the progress of the pupils. In addition to this, the child who does not attend regularly and punctually is not being formed in those habits that best fit him for useful and successful living.

The boys and the girls of to-day will be the men and the women of the future. If they have not been habituated to promptness and regularity in their school life, they cannot be expected to carry these characteristics into the business or professional world. They will not realize that success and greatness in any calling are not generally achieved by doing great things, but by doing little things remarkably well.

Irregular attendance at school may spring from several causes. First of all, there are just reasons for being absent, such as a serious illness, a severe storm, a contagious disease in the family, unusual trouble in the home, etc. But for one just reason, there are a hundred unjust ones, such as "I had to help my mother," "Father sent me on an errand," "Mother needed me to take care of

the baby," "I had to go to the market," "Grandmother said that I needed a rest," etc.

Reason for Inattendance. In a cosmopolitan country like ours, some of the reasons given for absence from school come from the thoughtlessness of the parents who seem to think that it is all right to keep their boys and girls at home occasionally. Many of these fathers and mothers come from a country where compulsory education is not so strictly enforced as it is here. Naturally it takes them some time to adapt themselves to the customs of our country. This is where Americanization societies should come in. They should see that every adult person coming to our country should have an opportunity to become well acquainted with its customs, laws, institutions, and history.

There are other parents who do not give enough thought to the nature and the process of education. They know that the law requires the children to go to school, but they fail to realize that the child is missing something every day that he remains out of school.

Let us suppose that a boy is absent for a week. During that time, the teacher may have explained the preliminary steps in fractions. When the boy returns, there are several things about fractions that he does not understand. He is either ashamed or afraid to ask the teacher to explain. He goes along as best he can without the explanation. He fails in the first quarterly examination. He begins to lose interest in the work of the class. His heart is not in his studies. He is slipping. If the teacher

or some one else does not take him in hand, he will undoubtedly have to repeat the grade. But, far worse, he is on the road that leads to Dullardtown.

Sometimes the cause of irregular attendance is to be found within the four walls of the classroom. It may be a cross, finicky, or unsympathetic teacher; it may be the old-fashioned and outlandish textbooks; or it may be the unhygienic condition of the room.

The question of school attendance then is a much more complex matter than one would think. The child, the parents, the teacher, the school, the attendance officer, and the State have to be considered. Furthermore, it makes a difference whether it is a rural community, a town, or a city.

No General Rule. In attempting to solve the question of irregular attendance, no general rule can be followed. Each case has to be thoroughly investigated by the attendance officer in city schools and by the teacher herself in rural schools. It is most unjust to punish a child for absence without first finding out the circumstances of the case. Do not say that you have not sufficient time for this kind of work. If you cannot get all the facts to diagnose the case properly, be sure not to prescribe punishment. You are apt to do more harm than good.

How often have we heard lecturers giving this advice to teachers: "Make the school life of the children attractive." This is sometimes misinterpreted. Occasionally, we have seen teachers amusing the pupils. This is not teaching. It is acting. It is a sure sign of weakness.

You can best make the school life of the children attractive by doing everything within the bounds of common sense and reason to interest them in the intellectual, physical, æsthetic, and religious work of the school. But, above all, do nothing that would give your pupils a distaste for any branch taught in your grade.

Coercion. When all other means fail to make a child a regular attendant, it is necessary to use coercion. Be kind, but firm, in your dealing with such children. Make them realize that you mean what you say. If it be necessary to read the riot act at any time, be sure that you put it into execution just as soon as the first culpable breach has been made. Too many teachers threaten the pupils, but seldom carry out the threat. This inevitably brings about unsatisfactory class management, and it does not help regular attendance.

All through the different grades of the elementary school, the teacher should insist on the necessity of prompt and regular attendance. This is especially necessary for the purpose of stimulating habit formation. The constant and persevering attitude toward this subject cannot fail to make a deep and lasting impression on the minds of the pupils.

The matter of tardiness has to be handled in practically the same way as that of irregular attendance. Promptness and punctuality must always be insisted upon. They are valuable assets in the pupil's training.

An occasional meeting of the parents and the teachers promotes regular attendance on the part of the pupils.

FOR FURTHER STUDY

1. Show the necessity of punctual attendance on the part of the pupils.
2. What is the best way of computing the attendance?
3. Do you consider 90 per cent a good average attendance? If so, why?
4. What are the best means of stimulating attendance?
5. Trace the history of compulsory attendance.

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XXVII

DISCIPLINE

What It Means. Were you to ask a teacher of fifty years ago to tell you what she meant by "a well-disciplined class," she would undoubtedly inform you that it denoted "a class that behaved well during school." To-day, however, the signification of the phrase is somewhat different. It takes into account the physical and the mental attitude of the pupils. It means more than sitting still in a hygienic position. It presupposes good order, gentlemanly conduct, and mental effort.

In days not so very far distant, the boy or the girl who sat quietly in the classroom was well disciplined. At the present time, the pupil is well disciplined when he is so interested in what he is doing that he has no inclination to do anything contrary to order and conduct. In former days, the teachers generally repressed the pupils and made them toe the line by main force. To-day, the tendency is to make the children discipline themselves. The activity of the pupils is directed into channels that will help to foster and develop all that is manly and noble in them. Repression generally had the effect of taking much of the joy out of school life, while guidance leads the pupils almost unconsciously along the thorny paths of educational effort.

In this chapter, we are not concerned particularly with that discipline of the mind which results from purposive study. The mastering of any subject requires a certain amount of mental discipline. We are not desirous of treating this kind of discipline. We wish to confine our efforts to the modes of behavior, and the manner of living and working in the school.

Prepares for Life. The teacher of to-day thinks not only of school life, but of the after years of manhood and womanhood. She instructs and disciplines her pupils so that they will form such habits that they will one day become exemplary citizens and practical Christians. Her teaching and discipline prepare for life.

Most of us have seen an unruly class, but how many of us have stopped to think of the causes of this condition of affairs? Call to mind the last poorly-disciplined class you saw. What brought about the unruly spirit of the pupils? Did it come from a lack of understanding? Was it due to forgetfulness or thoughtlessness? Was it prompted by mean, mischievous motives?

Types of Children. The child who comes to school for the first time enters into a strange and unknown world. He does not know exactly what he is expected to do. Ordinarily he means to do right. He finds it rather difficult to adapt himself readily to his new surroundings. He is liable to make mistakes of judgment. He may even do wrong without knowing it.

In view of these facts, the teacher must always encourage the first graders in their attempts to adapt them-

selves. She must make known to them what they have to do and how to do it. Like a mother, she must lead in their new surroundings. Thus can she win the respect and good will of her pupils. Thus can she help to make them orderly, well-behaved, and industrious pupils. Thus can she influence the formation of their character.

You will find another class of children heedless and forgetful. Even though the teacher has told them more than once what to do, they seem to have the happy faculty of forgetting it. They are told to study a certain lesson. Frequently they study some other lesson or forget it altogether. They do not regard the things of school in a serious light. They follow their own impulses rather than the directions of the teacher. They care little for punctuality, order, or behavior. The idea of responsibility is strange to them. This class of children are not bad at heart. They are merely thoughtless, haphazard, and irresponsible. Their example, however, has a demoralizing effect on the other members of the class.

There is still another kind of pupil called "heart-breakers." They are up to all sorts of mischief. They think about, plan, and execute little things that play havoc with discipline. Strangely enough, they regard it as mere fun. When such culprits are punished in any way for their misconduct, they assume the attitude of a martyr, and they oftentimes win the sympathy of their fellow classmates. In some cases, they develop a real malicious spirit.

Some one has said, "There is a reason for all things." There is surely some reason for an unruly school. But how few teachers have stopped to think about it! Sometimes this matter is not even touched upon in educational textbooks. Perhaps some authors consider it a disagreeable subject. This should make no difference. Even though the truth hurts, it has to be told.

General Causes of Unruly Schools. Among the general causes that lead to an unruly school, we may mention the disposition of some teachers who appear to see nothing noble or inspiring in the ordinary child. They act as if the pupils were beneath them. They forget that even little children are highly sensitive and that they grow tired of unkind remarks. Gradually the pupils assume the condition of fighting for their rights. They band together for common defense, and some of them go so far as to retaliate.

The second cause of the disorderly school comes from an opposite direction. The teacher is too indulgent. Sympathy is an excellent characteristic in a teacher, but like everything else it can be abused. It does not take the pupils very long to find out the indulgent teacher. She overlooks so many little breaches of conduct that the children gradually grow more and more unruly. They like to test their teacher. They want to discover how far they can go.

Under the same category comes the teacher who does not believe in corporal punishment of any kind. She believes that she can manage her class by sweetness and

light. We do not deny that it can be done, but few teachers are capable of disciplining a class in this manner. What is the consequence? In many cases, there is no order or conduct in the classroom. The teacher loses her place of leadership. The children lose confidence in her, and her discipline grows worse and worse.

The inadequate preparation of the teacher is still another cause for the unruly school. To many this is not so evident as the previous reasons. Nevertheless, it is a fact. The teacher who prepares well all her lessons and who can present them to the pupils in an interesting manner has little trouble with discipline, because she has interested every one in the work of the class. They have no time for breaches of conduct. But if the teacher is not well prepared for her work, she is apt to talk over the heads of the pupils or to present the lesson in a dry and uninteresting manner. Naturally the children grow tired of such a lesson, and their minds soon become busy with other things. The teacher talks by the hour and scolds very frequently, but the children pay little attention to what she says.

Inexperienced teachers are oftentimes responsible for unruly classes. Take a young woman entering the classroom for the first time. Naturally she is nervous, timid, and fearful. It does not take the children very long to realize this. So they begin their mischievous antics. The teacher, seeing the discipline of the class going from bad to worse, gets into a rage and oftentimes explodes. This is just the thing for which some of the pupils were waiting.

Experience in the Classroom. All young teachers should have five or six months' experience in class management under expert teachers before they are given the entire control of a class. This plan is followed in some of the best normal schools and teachers' colleges of the country. It should be followed in all such institutions.

It is a mistake, however, to say that no one without five years' experience can be ranked as a first-class teacher. We have known more than one young woman who did excellent work during her first year of teaching. Some teachers are endowed with a special aptitude for their work. They are masters of the art and the science of teaching. They see clearly what they have to do and they know exactly how to go about it. Such teachers do not need five years' experience to be ranked among the best.

The Personality of the Teacher. From what has been said in the preceding paragraphs, it is easy to understand that the personality of the teacher has much to do with the discipline of the class. We hear some teachers saying, "What do you mean by personality?" Leaving aside many complex and confusing elements, we would say that "personality means the factors or characteristics that go to make an efficient and successful teacher." What are these factors?

Different answers have been given to this question. We should say that the factors are "sympathy, principle, personal appearance, enthusiasm, scholarship, justice, sincerity, and good example." Some of these characteristics are based on religion, while others are the result of

physical and mental endowments. Moreover, some of the factors are more important than others.

How to Overcome the Unruly School. So far we have mentioned a few of the things that give rise to an unruly school; but all will agree that it would be much better if such a condition of affairs did not exist. How then shall we strive to prevent as far as possible the unruly school?

Numerous books have been written and thousands of lectures have been delivered on the subject of discipline, but are the teachers of to-day better disciplinarians than those of thirty years ago? Be that as it may, there are certain practices in educational work that promote and foster well-disciplined schools. In the first place, the teacher must not let her preference bias her against any of the pupils. The best teachers forget self in the work of the classroom. They keep in the background the sentiments and feelings that rule their lives. They act, as it were, impersonally. This tends to promote the best frame of mind among the pupils. But when the teacher considers everything that is done and said by the children as a slight to her, she is allowing her feelings to run riot. Even though the children do not always behave as they ought, their actions as a rule are not intended to injure or insult the teacher.

Supposing that the pupils are up in arms against the teacher, what is she to do? She must view the situation without the least prejudice. She must show the children that their estimate of her is not just. In doing this,

the greatest tact must be used. Like a general she must pick out the most vulnerable points in the stand taken by the pupils. She must show them that the school is run for their benefit and that she has only the best wishes for each of them. She must impress upon them the importance of education, and how useful and helpful it is in earning a decent livelihood.

Once she has convinced the members of the class that the only reasonable thing to do is to study as diligently as they can while they are in school, it will be easy to look after the discipline. An occasional word of encouragement is a most helpful medicine. So, too, is the inciting group rivalry. This can be done by what is called the individual assignments, by the problem, by the project, and by dramatics.

The Honor System. When the majority of the pupils are interested in the school work, it will be easy to introduce gradually the honor system. We say "to introduce gradually," because the children of the lower grades of the elementary school do not readily grasp the importance of honor as a trait of character. In striving for the honor system, the teacher must first of all appeal to the religious convictions of the pupils. She must urge them to look after the good name of the school as well as to do everything that would bring honor on their parents and their teachers.

Sometimes, when the teacher cannot appeal to the intelligence of a pupil, it is necessary to appeal to his physical nature. The iron hand is occasionally needed

to bring some children to a realization of their misconduct.

When coercive means of bringing about discipline have to be used, they must be put into operation quickly and firmly. No place for temporizing. No time for doubt. Do what you say at once. Bear in mind that the effect produced arises not so much from the action as from the moral effect. If the first punishment does not have the desired effect, especially if the pupil is trying to show off, it must be kept up till he sees the error of his way.

Rewards and Punishments. There is a diversity of opinion as to the practicability of securing discipline through rewards and punishments. The question goes back to the matter of motivation. From a psychological standpoint, it is undeniable that rewards are more conducive to character formation than punishments. On the other hand, it is said with truth that "it is a bad policy in school discipline to bribe children to be good." The fact remains, however, that penalties of one sort or another have to be administered for individual or group infractions of discipline.

In the early schools of New England, the teachers generally believed in the saying, "Spare the rod and spoil the child." To-day, however, the rod is gradually going out of use. The attitude of the people toward corporal punishment has also undergone a great change. In some cities and states, it has been legislated out of existence; in others, it is surrounded with a number of salutary conditions.

Though we heartily favor the curtailing of corporal punishment for children in the elementary schools, we do not think that it should be done away with altogether. There are instances where corporal punishment is about the only efficacious means of appealing to some few boys. Moreover, is it not a fact that in those places where corporal punishment has been entirely abolished, the juvenile crime has increased, and that discipline has not improved? There are too many sentimental theorists telling teachers how to do things that they themselves are not able to do.

When corporal punishment has to be administered, it is prudent to send the pupil to the master or principal. In some schools, the principal before inflicting the punishment consults the physical condition of the pupil, gets the parents' permission, has an adult witness, and keeps a record of the punishment. Teachers and principals cannot be too careful in this matter.

FOR FURTHER STUDY

1. As regards the matter of discipline, call to mind what experience has taught you.
2. What teachers find little difficulty in disciplining their class?
3. Explain the meaning of an "objective" and a "subjective" attitude.
4. How is the problem method an aid in disciplining a class?
5. Do you approve of coercive measures? When? Why?

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XXVIII

METHOD

Its Meaning. The word "method," as used in educational literature, has given rise to considerable discussion regarding its precise meaning. We might say that in general the word means "an orderly procedure for the accomplishment of a definite end," or "the regular manner of doing something."

From an educational point of view, Roark in his "Psychology of Education" says, "By method is to be understood the body of principles drawn principally from a sound psychology which are applicable to all teaching; by methods are to be understood the special plans and devices to be used in teaching a particular branch or study."

The definition seems to be too comprehensive. It includes a study of the principles of education which by many writers are treated separately. Method in reality applies the principles of education. The student is expected to know them before taking up the study of method.

For our purpose, we will define method as "the most economical and efficient way of educating a person"; or as "the most economical and efficient way of teaching any subject of the curriculum."

This definition takes into account the time spent in doing a given piece of work as well as the result of the teacher's instruction. It may refer to the whole process of education which begins at the cradle and ends at the grave, or it may be limited to one particular study. It aims at the quickest and most direct way of doing a thing and doing it well. It presupposes that the student of education has already mastered the general principles of education.

Necessary Considerations. In order to decide the method to be followed, we must take into account the pupils to be educated, the branches to be taught, the ideal or aim of the teacher, and the best way of utilizing the different subjects to reach the ideal in view. It is evident, then, that a knowledge of child study is important. The teacher must know the nature of the children she is called upon to educate, and she must understand the most successful means of arousing their mental activity. She must, furthermore, know the studies of the grade, and she must be able to interest her pupils in them. It is not sufficient to give the children just what is in the book. The teacher must be able to associate other interesting facts with the ideas contained in the lesson. She must be capable of making the cold facts of history, geography, grammar, etc., live in the experience of her pupils. She must have a definite aim, and all educative effort must tend toward that end. Finally, she must be able to educate her pupils economically and efficiently.

Various Ways of Doing Things. It is generally conceded that some ways of teaching a subject are more economical and efficient than others. The combination method of teaching primary reading is far better than the old-fashioned alphabetic method; and the sentence or thought method seems to be more natural and effective than the word method. This gives an idea of how important it is for the teacher to know the different methods now in vogue, so that she may utilize in her school work whatever is efficient in each of them.

General and Special Method. Some authors divide method into two classes, the general and the special. They say that the most economical and efficient way to impart an all-round education to a person is called general method, because its principles apply to all studies; while the best way to teach a particular branch of the curriculum is called special method. It is questionable whether this distinction is necessary for the proper understanding of the subject. It will, at any rate, help the reader to understand allusions made in other textbooks.

A Method and a Device. There is a marked difference between a method and a device. Method is more comprehensive than device. You may use one or more devices in any method. Dramatizing is a device used in teaching primary reading. It helps the teacher to know whether the pupil has grasped the thought of the lesson, and it gives the pupil valuable practice in oral expression. The placing of free-hand pictures on the blackboard is another device utilized to arouse the mental activity of

the children and to concentrate their thoughts on the lesson.

Method Depends Chiefly on the Aim. The method to be used in teaching any particular subject depends mainly on the aim the teacher has in view. If music is taught merely to give the pupils power in reading notes, the teacher will naturally stress that purpose in her work. But if the aim of the music course is not only to give the pupils a certain amount of facility in reading notes, but also to give them a love for, and an appreciation of, good music, the method of the teacher will naturally be somewhat different. All the time will not be spent in learning to read music, but some of it will be devoted to listening to, and appreciating the cultural power of, good music. In a word, a knowledge of the end in view serves as a practical guide to the teacher.

The teacher who is preparing her pupils to pass a successful examination in answering all the questions in Christian Doctrine will undoubtedly stress the learning by heart of the text and will give little or no attention as to whether they understand the matter. The real and efficient teacher will lead the children in the first place to understand the text and then have them memorize it.

Methods as a rule are tested by the results produced. But is there no way of evaluating a method without trying it out? We can get some idea of the efficiency of a method by seeing whether it is according to the general principles of education. These principles have been tested by thousands of teachers in the past. No one to-day thinks

of denying them. If any method is built on these principles it undoubtedly has an educational value. It is worthy of being tried out in the classroom.

Beacon Lights. Economical and efficient methods in teaching take the following educational principles into account :

1. Education aims to develop all the powers of the pupil.
2. The powers of the mind and the body are developed by exercise.
3. These powers should be exercised according to the natural order of development.
4. Voluntary mental exercise is more educative than nonvoluntary exercise.
5. Sense training and objective teaching should predominate in childhood.
6. Elementary instruction should proceed from the known to the related unknown.
7. The instruction should be suited to the mental capacity of the pupils.
8. Progress in education depends on the power of attention.
9. Habit formation lies at the basis of education.

A Good Sign of the Times. Not a great many years ago, it was a common opinion that a knowledge of the subjects to be taught was all that any teacher required to fit her for the work. To-day, however, this notion is not so prevalent. The importance of method in all kinds of skilled work is being recognized more and more. This is

especially so in regard to the art of teaching. Experience has shown that some of the most scholarly men are failures as teachers. They know their subject, but they do not know how to impart it. They lack a knowledge of method, or at least they do not know how to apply it in their teaching.

FOR FURTHER STUDY

1. Show the relationship between "method" and the "aim" of education.
2. Explain the "inductive" and the "deductive" method.
3. Why should every teacher study method?
4. Enumerate the educators of the past four or five centuries who have made a special study of method.

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XXIX

THE PROBLEM METHOD

A New Viewpoint. In an effort to promote the cause of education, men and women throughout our country have been making and are making investigations regarding the methods of teaching followed in our elementary schools. As a result of these investigations, school practices have been improved and many important things have been called to the attention of our elementary teachers.

From the very beginning, problems of one sort or another had to be solved by the people. What is more, occasional problems have been introduced into school work. But it remained for the educators of the past fifty years to feature in its true light the problem method.

In days not very far distant, the chief concern of the teacher was to inculcate certain branches, such as reading, writing, spelling, arithmetic, geography, and grammar. The apparent work of the school was to give a certain amount of knowledge to the pupils. To-day, however, the development of the thinking ability of the children occupies rightly the most prominent position while the teaching of certain branches of knowledge takes a secondary place. These studies are regarded as means to an end.

It has been ascertained by investigators that problems

in the various school studies are especially fitted for developing the thinking powers of the pupils. For this reason, the problem method of teaching has come to the forefront.

The Present and the Past. For hundreds of years the memory has been overdeveloped at the expense of the thinking powers. Teachers used the mechanical memory method rather than the thought method in developing the minds of the pupils. Like the Chinese, students were often compelled to memorize hundreds of lines of Latin and English poetry while paying little or no attention to the thoughts of the selection. That day, thank God, is gone forever. The present-day teacher strives to develop the thinking powers of her pupils in every grade of the grammar school. She realizes that there is no true education without real mental activity, and she is convinced that the problem and the project are admirably suited to develop the mental capabilities of the pupils.

The Purpose of the Problem. The purpose of the problem is to arouse and to develop the pupils' thoughts. It requires the children to search out and collect arguments for and against, and to organize them into shape before passing judgment on them. But, above all, it tends to give the pupils a certain ability to think for themselves; for the solution of any problem requires them to compare, to understand, to value, and to reach a conclusion.

It is necessary, of course, to suit the problem to the mental ability of the child. The simplest and the easiest

problems having a place in the pupils' experience should be given to the first graders. At first they may answer at random; they may not stop to think. But the wise and efficient teacher will know how to stimulate their thought. Then as the pupils make progress in the grades the problems will naturally require more thought on the part of the pupils.

Like other good things, the problem method may be done to death. We must beware lest we stress it too much. We must never forget that in the grammar schools we are dealing with children and that we should not expect too much from them.

How the Problem Method Helps. The teacher who gives suitable problems will find that her pupils gradually gain a certain amount of confidence to tackle the various problems of their young life. They gain a power in expressing their thoughts and a facility in asking intelligent questions. After a time, they will undertake to do things at school without the aid of the teacher. In many cases, is it not a fact that the teacher does too much for her pupils? It would be much better were they not so dependent on her. They would be better fitted to continue their studies in the high school and in the college.

The problem method, while it aims primarily to develop the thinking ability of the pupils, does not wish us to neglect the training of the memory. The facts stored away in the treasure house of the memory are recalled and utilized in the solving of problems. In a word, the

problem method exercises and develops both the mechanical and the logical memory.

Two Ways. In days gone by, the teacher oftentimes told her pupils, "For your history lesson study pages 26, 27, and 28." In obedience to the wishes of the teacher the children studied, better still, memorized the allotted pages, paying little or no attention to the why's and wherefore's of the text. But in the problem assignment some particular question discussed in the pages has to be solved. The children readily understand that something definite has to be considered. The pages of the textbook have to be read and studied carefully so as to point out the precise part that helps most to solve the problem. This undoubtedly requires concentration and purposeful thinking.

Let us suppose that the teacher assigned for problem work, "Why did the American Colonists rebel against England?" To bring a correct solution, the pupils of the sixth or the seventh grade would have to read that section of American history dealing with the causes of the American Revolution. Then they would have to select the germ truths that go to solve the problem. This selection, undoubtedly, requires thought on the part of the pupils. They must place these germ truths in an orderly arrangement so that they will give a bird's-eye view of the lesson and so that they will give the important facts that brought about the American Revolution.

Problems Require Special Effort. In the working out of such problems, the pupils are always given a central

point about which they can readily group all relevant matter; individual effort is encouraged and developed; the textbook is not the only source of information consulted; the pupils are required to weigh and value the facts that they have found, and brighter and more ambitious pupils are brought face to face with sufficient material to tax their mental ability.

At the outset of problem work, the teacher will have to lead her children and show them how to collect, organize, and value the information at their disposal. In fact, the work will be rather tedious and the progress slow. Nevertheless, it is well worth while.

As the pupils reach the higher grades of the grammar school and the high school they will naturally be required to consult a number of reference books to be found in the school library or the city or town library. Here again the teacher or the librarian-teacher will at first have to act as their guide. She may even have to show them many little things about indexes, bulletins, etc. Though she is allowed to guide the pupils in their search for special information, she must never give them that information.

The Kind of Problems. In the selection of problems, the teacher must always consider the experience, the environment, and the ability of her pupils. She must never assign one that is too large. Better have several smaller ones. The problems should neither be too obvious nor too difficult. All class work cannot be reduced to problem instruction. Literature, music, his-

tory, and art have many viewpoints where no question arises in the minds of the pupils.

From the fourth to the sixth grade inclusive, problem work in geography, history, religion, and arithmetic should be stressed. This will help to develop the pupils in argumentative and expository forms of oral and written composition. When the pupils enter the seventh and the eighth grades and the high school the problems naturally should be more difficult and should require more effort to secure the necessary facts, to organize them, and to evaluate them.

The problem method has come to stay. As long as it helps to develop the thinking powers of the pupils, every teacher should utilize it in her classroom.

FOR FURTHER STUDY

1. Show how the problem method prepares for life.
2. What subjects of the elementary school lend themselves to problems?
3. How does a problem differ from a project?
4. Show how the problem method helps the pupils to think.

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XXX

THE PROJECT METHOD

Its Meaning. Another means of making school work more efficient is the project method of instruction. This should not be confused with the problem method. A project is a design or plan to be carried out. To make a kite, to construct a house for pigeons, to count the number of houses in a town, and to find out the longest streets in the city are projects. In educational parlance, a project is something which the children are interested in doing. Like the problem, it may involve purposive thinking. Ascertaining the number of books in the school library is a project that does not require much thinking. The project has generally for its purpose to investigate, to organize, and to accomplish, but it does not necessarily stimulate thought as the problem does. A project, as a rule, is less comprehensive than a problem. One problem may contain several projects.

Ways to Select Projects. The projects for school work may be selected in three ways: (1) The teacher may choose the projects from the spontaneous expressions or desires of her pupils. In this case she depends mainly on the children's wishes. She is guided in her choice by their expressed needs. (2) The teacher may select the projects from those which are most desirable from an

educational standpoint. Here she depends mainly on the findings of paidologists and child psychologists. This supposes that the teacher is well versed in child study, and that she understands the best and most efficient ways of arousing the mental activity of the children. (3) The teacher may select her projects by combining the two ways already mentioned. She will rely on the needs of the child as well as the things that educators say are best for the child.

It is evident to experienced teachers and educators that in the selection of projects we cannot be guided solely by the expressed desires of the pupils. Neither can we disregard them altogether. A happy combination of the two in which the desires of the pupils are tempered by the judgment of the teacher is undoubtedly the best way to select projects for school work.

Projects Supplement the Work of the Class. The project, bear in mind, is not intended to be used in opposition to the regular work of the class. Its chief purpose is to aid and supplement the regular class work. It is much more efficient than the question and answer method of instruction, because the project provides for continuous work on the part of the pupils. It gives the children exercise in collecting, organizing, and weighing facts. It tends to keep the pupils interested in educational work after school hours. It helps them to learn how to study.

We must not think that the project method of instruction is something new in the educational field. It is, in fact, as old as the hills. For centuries it has been used

by thousands of teachers in their endeavor to do efficient work. It remained, however, for the present century to bring this matter in a special way to the attention of teachers.

The project method may be used in any branch of the curriculum. When it is utilized by all the grade teachers, the children generally are better prepared for complete living. The boys and the girls when they reach manhood and womanhood will be better prepared for the industrial, the financial, the professional, and the political projects that they will have to face.

Projects Are Unlimited. There is no limit to the number of projects that will occur to the intelligent, progressive, and resourceful teacher. Like everything else in education, the getting of suitable projects for the various grades requires considerable study and work. It demands patient toil and self-sacrificing labor. Here are a few in which your pupils may be interested :

(1) To tell the members of the class about the good books that you have read.

(2) To discuss the country or the city as a place in which to live.

(3) To find out some good places to go on a vacation.

(4) To select the most suitable picture for a classroom.

(5) To ascertain the best way to make a poor boy happy for Christmas.

(6) To explain the territorial expansion of the United States.

(7) To study town or city government.

(8) To discuss the growth of coastal cities.

(9) To inform your companions as to the best way to beautify the classroom.

(10) To tell the class the benefits of the radio.

To master any of these projects will require the pupils to study carefully the information given in their textbooks as well as to consult other reference books in the school library or in the public library. It will make the pupils select the kind of information that helps in the mastery of the project. This will develop their judgment. It will enable them to discard what is not to the point and to retain what is valuable. It will teach them how to study with profit and success. It will, in a word, develop their mental capabilities.

FOR FURTHER STUDY

1. In your opinion, do projects appeal to the majority of children?

2. Are projects or problems more suited to the children of the primary grades?

3. In the teaching of religion is it well to use the project method? Why?

4. Does the use of projects and problems increase the work of the teacher?

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XXXI

THE CURRICULUM

What It Is. One of the most discussed phases of education at the present time is the curriculum or course of studies. Some educators are striving heroically to bring about changes in the courses now in use, while many others seem to be satisfied with the curriculum that they follow.

The course of study, as a rule, includes a graded outline of the subjects to be taught, the order to be followed in teaching them, and the portion of each to be mastered in a given time. When these studies are arranged for each day of the school week, giving the order and the amount of time for each, we have what is called a daily program. This, however, is not directly connected with the curriculum. It is generally treated under the heading of school management.

A course of study is not the work of any one educator or body of teachers. It is the result of the experiences of the teachers and educators of the past ages added to the educational views of those who make up the course.

The gradual growth and development of the curriculum can be readily seen in the histories of education. The subjects taught by the ancient Greeks and Romans are different from the branches taught to-day. The curricu-

lum of Christian education differs materially from that of pagan education. Time has brought many changes even to Christian education.

A Mistaken Notion. It is sometimes said by those who should know better that the Method and System of the Studies of the Jesuits, (*Ratio Atque Institutio Studiorum Societatis Jesu*), is practically the same to-day as it was in 1559. Some go further and insinuate that the Society of Jesus is not allowed to change it. A study of the *Ratio Studiorum*, as it is commonly called, would show them the error of their way of thinking. That great document declares that changes can be introduced by superiors when the special needs of different times and countries require it. What is more, many minor changes have been made in this course both in Europe and in this country.

A Contrast. Compare the course of study pursued in the colonial schools with that now in vogue. What a change! This in great measure is due to the educational ideals and aims of different centuries. The Puritans' philosophy of life has vanished. Other, and oftentimes less worthy, ideals fill the minds of the people. The practical and the social aspect of education is now stressed in our public schools, while religious instruction is almost entirely neglected.

A Means to an End. It can be truly said that the curriculum used in any particular locality depends on the aim of education influenced by the traditional course. In other words, the curriculum is chiefly a means to an

end. For example, when it was found out that the public schools could not in justice teach religion to the children belonging to different sects, all matters dealing directly with religious instruction were eliminated from the course of study.

In our own time, we have seen some changes in the curriculum. Many things that we as children studied in the elementary school are not in the present course of study. Why? Because experts and educators have agreed that these things are not necessary to attain the end in view.

Educational Values. Before we can decide whether a particular study is necessary or not, we must definitely agree as to the aim of education. We must have a clear-cut ideal before us. We must see precisely the kind of men and women that are desired. Then we can begin to think about and to select the studies that are best suited to produce this type of citizen. Reading, writing, English, arithmetic, history, and religion will generally find a place in all complete courses. They are, as it were, fundamental subjects. They have an educational value in every age. The other studies, such as music, nature study, geography, civics, science, hygiene, etc., are of later growth.

How Much Time for Each Subject. When the various subjects of the curriculum have been decided, the next thing to do is to find out how much time should be devoted to each of them; for some subjects of the curriculum are more helpful than others in preparing the young

to become loyal, conscientious citizens, and practical and exemplary Catholics.

Many investigations have been made regarding the correct amount of time to be devoted to each subject. These investigations, as a rule, tell us what is being done in many places, but they fail to say what ought to be done.

Present-day courses of study generally err in being too precise. They map out what is to be done each hour, each day, each week, each month, each school year. They seem to give the impression that there is no interrelation between the different branches taught in the school. Is it not a fact that when everything is cut and dried for the teacher, it has a tendency to take away all initiative? This has happened in some city schools. Too much prescription does more harm than good.

The Makers of the Course. Who is generally responsible for the making of the course of study? In many instances, the superintendent and a few principals do the work. Such courses give us the experience of experts, but they are not always practical, because the actual teachers of the children, those who have to do the work, are not consulted. Every teacher in the system should have an opportunity to contribute her mite to the formation of the curriculum. This would give extra interest in her teaching. She would give more thought to her daily work. She would watch more carefully the effect produced by the various studies. She would be better equipped to give the provisional course a fair trial before it is finally adopted.

Courses Need to Be Changed. It is a serious mistake to think that any course of study will stand the test of all times. The ideals of the nation and the State change, the needs of the people vary, and different occupations spring up in various sections of the country. Take, for example, the automobile industry. Education at best is a preparation for life. Are the courses of study now in vogue preparing the children? Are they doing it as efficiently as possible? Might they not be improved?

Present-day Criticisms. Many good friends of elementary education contend that considerable time, energy, and money are wasted in our present-day schools. They claim that there is much useless repetition, and that too much time is devoted to some subjects and not enough to others. They say that all the pupils are expected to make equal progress; that a large percentage of the children who enter school never graduate; that the curriculum is not always suited to the present needs of the children; that the courses of study are generally arbitrary documents compiled by college professors, superintendents, and normal school teachers; that too many pupils have to repeat a grade; and that there is too much work assigned for each grade.

The Remedy. These educators insist that the curriculum should be revised, simplified, and rationalized with a view to meeting the needs of the pupils. They suggest that the course should first of all give a thorough knowledge of the essentials. Others contend that the aim of education should be made more concrete by setting up

specific ends to be attained and that these ends should be apparent to the pupil as he makes progress in the grades.

Whatever we may think of these remedies, we firmly believe that there is a crying need to vitalize the study of English by correlating it with other studies. Language in itself is an empty subject. It is only by connecting it with other subjects that we can hope to get the pupils deeply interested in its mastery. There is another reason to stress the study of English. Is it not the framework of the entire curriculum? Is not every other subject taught in the elementary school somewhat dependent upon it?

In the final report of the Committee of the National Council on Changes Needed in the Elementary School Course, the following recommendations have been made:

English for To-morrow. "In most courses of study, the literature read and studied in school is 'classic.' The real difficulty before the school is that we are training the children who face not yesterday, but to-morrow. Some of the best modern writing should be presented to the youth of America.

"No fairy story should be told to children unless it has a real ethical value. The old-fashioned allegory trains imagination quite as well as does the fairy story, and has a moral value that lasts through life. . . .

"Most of the Mother Goose rhymes were originally lampoons, political or personal; for instance, London Bridge was a lampoon of the time of Charles II. When their history is taught, those which have an historic value

may be taught to advantage; the others might better be omitted, and simple songs with equal rhythmic value, written by our great authors, be substituted for them. It is absurd to teach to children six or seven years old the foolish rhymes that we older people learned in the nursery at the age of two or three.

“The task before us in all English work is to try to make it vivid to the pupil. No child should ever be asked to write a composition on a subject which is not clear and distinct to him as a personal experience. Vague subjects and glittering generalities destroy a child’s interest in the composition lesson.

“Technical grammar should be omitted from the first six years of school. The grammar studied in the seventh and eighth years should be simple in character.”

History for Progress. “America thus far has been the greatest experiment in democracy that the world has seen. The children of to-day face a new world and must learn history in the light of present-day developments.

“While world conditions of to-day must not be neglected, the best training for the child is a study of the laws and government of his own community, the things which he can readily understand.

“History, as taught in the past, has focused the pupil’s attention upon military greatness. Democracy demands that the pupils of to-day shall study the progress of nations and races rather than the story of kings and generals. To this end, periods of history should be chosen and the life of the people during these periods made real by

means of research and project teaching, culminating in pageants.

"Each period studied should be vividly contrasted with the everyday conditions of the present time."

Common-sense Arithmetic. "Elementary school arithmetic (the first six years) should be confined to those processes with whole numbers, fractions, and decimals used in the everyday life of the great mass of our population outside of technical or special vocations. The substantial mastery of a certain number of often used abilities is better than half knowledge of twice that number.

"The application of these processes should be confined to the problems that arise in the lives of the children and in the homes and communities of the average family.

"All mathematical puzzles and conundrums should be eliminated; and all problems, where in the real world the data of the problem are obtained from the answers, and all business, economic, and industrial problems (studied for social instead of vocational needs) should be left for the junior high school.

"This would eliminate the addition and subtraction of all fractions except those arising in the expression of units of one denomination in terms of a higher in our ordinary tables of measure. Such an elimination would render unnecessary methods of finding the least common multiple and the greatest common divisor. It would also greatly reduce the amount of complex work in multiplying fraction by fraction and dividing fraction by fraction.

“Such a course would also revolutionize the teaching of decimals. Instead of teaching the pupils to express the remainders in long division as meaningless fractions with large terms, the division would be carried to tenths or hundredths as the nature of the problem required. These quotients could be added or subtracted as easily as dollars and cents.

“Multiplying and dividing decimals by decimals should be left until the latter part of the sixth year, and then lightly stressed. Percentage should be taught as notation for hundredths and but the two problems of everyday life should be given; namely, finding the relation of two numbers and expressing it in per cent, and finding the per cent of a number.

“The reduction of compound denominate numbers as a separate topic independent of the usual work of multiplication and division should be eliminated, as well as the four fundamental processes in denominate numbers. Mensuration should be confined to the simple needs of areas and volumes of a house, or any familiar object.”

Live Geography. “The airplane, wireless, telegraph, and telephone link the ends of the world in such close connection to-day that the people in the antipodes have become our neighbors. It therefore becomes imperative for us to know them intimately.

“Geography is fundamental to the history of the human race, for geographical features have controlled the development of nations. Physical and climatic conditions dominate human industries, and a study of geography,

to be effective, must show how and why human industries are located as they are and why humanity is concentrated in specific regions which are either topographical or climatic.

“The physical map of the continent should be the one continuously used, so that the geographical features may be firmly fixed in the mind of the pupil who will thus learn to know why population is sparse in certain regions while others are crowded.

“The regions of production should be placed clearly before the children — the great coal and iron regions, making possible structural steel and intensive manufacturing; the grain areas of the world; the cotton districts; the fruit and timber regions; the roadways of commerce, tying cities together with waterways and railways, and ere long, with airways. Somewhere or other in the course, both the history and the geography of such trade routes as the Erie Canal and Mohawk Valley, the Santa Fe Trail, the Overland Mail, the Danube, the Khaibur Pass, the Suez Canal, the Panama Canal, the Berlin to Bagdad Railway, and other historic highways should be studied in detail. These are instances of the intense geographic control of human history.

“Pictures on paper and screen, still and moving, cannot be too strongly emphasized; they naturally fall under these heads: physiographic scenery, social and industrial life, and transportation.

“The teacher should be the selector of her own pictures. Various side excursions may be taken through the use of

pictures; for instance, the garb of the Bedouin nomad shows that cotton grown in Texas and woven into cloth in New England may be marketed in the Arabian desert."

1000 Words for Spelling. "The National Education Association should issue an authoritative list of the one thousand words which form the vocabulary of the average human being who has not had the benefit of a high school education. This list should be made by a study of all the present lists of scientifically chosen words, as well as those taught in good business schools.

"With this could be arranged a simple compendium of the rules required for punctuation in proof reading."

Science and Manual Training. "The world is calling for people who think, because the life of to-day is dependent on scientific research. Science, more than any other study, demands thought; it is therefore imperative that our children should study at an early age the beginnings of science, both organic and inorganic.

"Just as inorganic science should be studied through the grades, so also should simple organic science. The fundamental difference between living organisms and inorganic matter should be taught with special emphasis on feeding, breeding, and growth."

Shop Work and Cooking. "Shop work and cooking should not be confined to the seventh and eighth years, as at present because of expense, but should be taught throughout the school life of the child, the younger children taking the place of helpers to the older girls and

boys. All manual training, science, and art work should follow taste and ability lines, rather than sex lines."

Visual Instruction. "In ancient times education was transmitted from father to son by word of mouth. To-day visual instruction is far more important than oral instruction. We appeal to the eye of the child through books and pictures, and the appeal to the eye is more powerful than that which is addressed to the ear. We all know the old saying, 'In at one ear and out at the other,' but no one has ever said, 'In at one eye and out at the other,' because things seen are best remembered. For this reason, it is imperative for the up-to-date school to introduce visual instruction in all branches as far as possible."

No Mention of Religion. There are many excellent suggestions in this report of the Committee of the National Council on Changes Needed in the Elementary School Course as presented by Katherine D. Blake, of New York City. But the most important need of the times, the necessity of religious training, has not even received a mention. This does not mean that the members of the National Education Association do not realize the important place of religion in any well-balanced and complete curriculum. Educators of note throughout the country admit that a knowledge of religion is essential for the highest type of citizenship.

An Oft-expressed Opinion. To give an idea of the thoughts that are passing through the minds of some members of the National Education Association, we give an extract from an article contributed in October, 1922, to

the *Missouri School Journal*, by W. R. Davis. Here is what he said of the education given in our public schools :

“It is a most pathetic fact, that the education of to-day is so void of that which makes for spiritual growth in our schools. What the world needs to-day is an education that will lift it out of the throes of materialism into the reality of spiritual understanding. Too long have our schools been leading us away from the true understanding of what real education is.

“Our schools and colleges are turning out thousands of young men and young women every year who have little or no idea about what the real philosophy of life is. These young people have become commercialized, ready to sacrifice their real being for commercial gain. They are void of high ideals because the books they studied, the courses they took, and the environment they were in had nothing for them that would arouse the soul of the student to a fuller and richer spiritual growth. The teachers, too, have considered education as a pouring-in process and have very effectively filled the minds of their students with the knowledge of this world, without implanting within their lives a single thought of righteous living.”

FOR FURTHER STUDY

1. Who should make up the course of study?
2. Should all the elementary schools be taught in the English language?
3. Would you prefer a State, a county, or a city course of study?
4. Why is it necessary to have a course of study?

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XXXII

THE RECITATION

1. TYPES OF RECITATIONS

Its Scope. In the work of the elementary school, considerable time is devoted to the recitation of the different lessons. Hence it is important that the teacher should know how to conduct an efficient recitation. The organization and management of the class, very important in themselves, are not discussed in this article. It is presupposed that the teacher is in full control of her pupils.

It is hardly necessary to say that discipline is absolutely necessary for efficient teaching. You cannot have a good recitation without it. On the other hand, some teachers have excellent discipline and do not know how to conduct an efficient recitation.

The First Step. When the teacher has gained the attention of her pupils, she generally begins the work of the recitation period by leading them to see the connection between the previous lessons and the present one. This tends to add interest to the work and helps the children to remember better the facts of the lesson. Can it not be truly said that practically all educative progress in our schools depends on the attention and the interest of the pupils?

From the Known to the Related Unknown. By leading the children to perceive the relation between the facts of the previous and the present lesson, or, better still, by having the pupils recall the previous lesson so as to proceed naturally and logically to the present one, the teacher is applying a fundamental principle of education. She is teaching the children to go from the known to the related unknown.

The Recitation in Days Gone By. In olden times, the recitation period was chiefly devoted to questions and answers on the assigned lesson. The pupil who could answer every question, no matter whether she understood it or not, was given a perfect mark. It was principally a matter of memory, pure and simple. This condition of affairs is not so prevalent as it used to be. The general tendency to-day is to find out whether the pupils understand the text that they have memorized, and whether they can apply the information contained therein to the ordinary things of life. This is especially so as regards the study of religion.

The Question and Answer Recitation. The questions asked must always be suited to the mental ability of the pupils. In the primary grades, those requiring only short and simple answers should be given. Then as the children make progress in the grades, the questions asked will require longer and more complex answers. In the lower grades of the elementary school, the question and answer recitation is generally used. It is also utilized in recalling the main points of the previous lesson, and in conducting

short, snappy drills, or the weekly and monthly reviews.

The great educator, Socrates, used frequently the question and answer recitation when teaching new facts. By a number of suitable questions he would lead his students from something that they knew to something that they did not know. He believed that it was poor policy to do for a pupil anything that the pupil could do himself. He favored the "drawing out" plan of instruction rather than the "pouring in."

Like everything else of any consequence, the question and answer recitation may be overdone. The pupils may grow to depend too much on these questions. They become accustomed to dealing with parts of the lesson rather than viewing it as a whole. They do not lead up to the topical recitation which they must sooner or later learn.

The Topical Recitation. In this plan, the teacher assigns the chief topic for study, and the pupils are required to discuss it the next day. Sometimes, she may ask a general question, the answering of which will require the pupils to pick out, organize, and evaluate the main facts of the lesson.

As the question and answer is chiefly used in the lower grades, so the topical recitation is best suited for the higher grades. This kind of recitation gives the children a good opportunity to master the art of study. It should be introduced very gradually as the pupils make progress in things educational. It can be used to advantage in

the study of religion, history, and reading. Even when this kind of recitation is used by the teacher, it is occasionally necessary to introduce the question and answer plan.

The Lecture Plan. Some teachers make it a rule to talk to the members of the class instead of listening to them recite. They may talk during the whole recitation period, or for a part of it. If the latter alternative is followed, the remaining part of the period is taken up by the question and answer recitation, or the topical recitation. This plan is generally used in colleges and universities, especially where the students know how to study, but it is not well suited for the immature minds of the pupils in the elementary schools. As a rule, it does not find favor with grammar school teachers. It is used rather sparingly by them.

The Written Recitation. A written examination is sometimes used by teachers to test the knowledge of their pupils. It has the advantage of calling upon all the pupils of the class to see whether they have studied and mastered the lesson. It is particularly suited for the spelling, or the religion period. It should not be utilized too frequently. It has a tendency to cause fatigue. It oftentimes gives rise to careless writing.

The Necessary Conditions. Anything that takes the minds of the pupils from the work on hand should be carefully avoided, because the success of the recitation depends chiefly on the attention of the children. Distractions of any kind are a positive hindrance to a good recitation. Visitors or children coming into the room,

the mischievous antics of a boy or a girl, an unusual sound outside the classroom, etc., are calculated to disturb the work of the school and to lessen the attention and the interest of the children. Suppose a little girl brings a message from another teacher. The work of the class is stopped at once. The teacher reads the note and the pupils begin to think about the messenger or wonder what is in the message. Then it requires time and effort to get them interested once more in the recitation.

All physical discomforts lessen the success of the class work. It may be too hot, or it may be too cold. The room may be poorly lighted or ventilated. The desks may be unsuitable. The pupils are not in the best frame of mind. They cannot give the recitation their undivided attention. They cannot do efficient work.

The success of the recitation depends on the manner in which the teacher prepares her lessons. If she have mastered the matter to be taught as well as its correlatives, if she know how to develop the lesson in an interesting manner, if she have the power of appealing to the experiences of her pupils, she will undoubtedly conduct a successful and efficient recitation; and the children will grow educationally.

2. ASSIGNING THE LESSON

Its Importance. Strange as it may appear, the assigning of the lesson is more important than many persons realize. We all know teachers who merely say during the last minute of the recitation period, "Take the next

four pages of the history." They seem to think that this is sufficient. As a matter of fact, it is not. It might be for grown people who understand how to study, but for children in the elementary school it is not an efficient assignment.

The Teacher's Part. What then is required? The teacher must go over the lesson for the next day with the pupils. She must show them how to study it. She must bring out the important facts, and show how they are related to other facts already studied. In doing this, she must endeavor to make the children do the work. By asking a few well-directed questions, she will get them all thinking about the lesson and trying to understand how it is connected with their experience.

In this way, the pupils have a good idea of the lesson before they leave the school, so that it will not be a very difficult task to master it before the next day.

You can see how this plan readily appeals to the children. They realize that the teacher is trying to help them to learn their lessons. They appreciate her interest in them, and they generally make an effort to master the lesson.

They Have Time. Some teachers say that they have no time for this work. Let them make time. Let them take it from the recitation period. By doing so, they will be sure to accomplish more, and the pupils will make more progress.

To be able to assign the lesson properly presupposes that the teacher has already mastered the assignment

and understands the proper methods of study. The careless teacher does not care to do this. She does not see the need of it. It looks like making extra work for herself.

How much of the recitation period should be allowed for assigning the lesson? One third of the time is not too much. Some teachers keep it down to one fourth. As regards the time for assigning the lesson, it is generally better to wait till the closing third of the recitation. The children will more readily see the connection between the lesson which they have recited and the one that is going to be assigned.

Assigning Different Studies. It is not hard to see that the assignment of some lessons like history and religion will require a longer time than assigning the spelling and drawing lesson. No matter how long it takes, it is absolutely necessary for efficient teaching. Do not feel that it is a waste of time. That is only possible when the teacher does too much for her pupils — when she goes over the lesson so thoroughly that there is scarcely anything left for them to do.

In assigning the lesson, then, the teacher should go over the matter with the pupils so that they may get a complete outline of the principal facts. Occasionally she should show them how to analyze the assignment. At other times, she should have them make a short summary of the lesson.

The teacher should furthermore make it a practice to point out the difficult points of the lesson, and if she

thinks that they are beyond the comprehension of the pupils she should help them to understand the difficulties. Otherwise the children may lose a great deal of time trying to unravel things beyond their mental ability.

It is also very helpful to habituate the pupils to look up in the dictionary and in reference books special allusions in the lesson. This adds considerable interest to the work and acquaints them with other useful and helpful books.

3. HOW TO ASK PROFITABLE QUESTIONS

Different Kinds of Questions. Many thoughtless persons imagine that almost any one can ask educative questions. It is perfectly true that nearly every individual has the ability to ask questions, but how few of them can ask educative or profitable questions? This presupposes that the interrogator knows the lesson thoroughly and has a good idea of the mental power of her pupils. But, above all, each of the questions must naturally follow one another and lead to a definite end.

Avoid Too Many Book Questions. When formulating questions, the teacher must be on guard lest she use too frequently the identical words of the textbook. We realize that this is easy both for the pupils and the teacher. Nevertheless, such questions are not the best. The pupil generally gets the answer without the expenditure of any real thought. It is better in the higher grades to give questions that will require suitable effort on the part of the pupils to answer them.

Questions Should Be Prepared Beforehand. It is an excellent rule to prepare the questions beforehand, having in mind the precise answer to each, and, when the time comes, to ask them in their natural and logical order. This will undoubtedly help the pupils to see the relation between the different parts of the lesson. Go into many classrooms and you will find much aimless and haphazard questioning. Why? Because, the teacher, as a rule, has not prepared her questions and does not realize the importance of asking them in the natural order. As a consequence, the pupils lose interest in the work. Their attention lags, and they are making but little educational progress.

The Right Kind of Question. All questions should be clear and definite. They should not contain an obscure or ambiguous word. Moreover, they should be not only short and direct, but also adapted to the mental power of the pupils. Puzzles and conundrums should never be given to school children. They tend to discourage them. The purpose of all questions should be to arouse the intellectual activity of the children. That being so, questions too easy or too difficult are entirely out of place. In this matter, it is always prudent and wise to follow the golden mean.

How to Proceed. The teacher's questions should be addressed to all the members of the class in a conversational tone of voice. This causes each pupil to listen to the question and to figure out the answer lest he should be called upon. Whereas, if any particular pupil is called

upon at first, the other children may or may not listen to the question and are apt not to think out the answer. Besides, the teacher should have no regular time for calling upon the different members of the class. They should not be able to tell when they are to be questioned. Let the pupils understand that they may be called two or three times in the same period, especially if they are inattentive. This helps to keep all the pupils on the *qui vive*.

Thought Questions. The questions asked by the teacher should require some thought on the part of the pupil. Questions that can be answered by "yes" or "no" should seldom be used. They give the pupil too much opportunity to guess and not to think.

Should the answer be always couched in a complete sentence? This matter is somewhat controverted. Ordinarily it is better for the pupils to give their response in the form of a sentence. However, there are times when a briefer answer should suffice. Take, for example, in rapid drill and review work, why should not the answer given in a word or two be sufficient? Forcing the pupil to give every answer in a complete sentence seems to be a waste of time and energy. It is not natural. It is stilted and out of the ordinary. Be careful then not to work to death the complete sentence answer.

The Teacher's Attitude. The wise and efficient teacher pays strict attention to all the responses of the children. She makes them feel that she is deeply interested in everything they do and say. She encourages them when they

answer correctly. If a pupil fail she never utters an unkind word. She passes it off by saying, "You will do better the next time, John." Sure enough, John will make an extra effort to succeed the next time.

Once the question is given clearly by the teacher, it is best not to repeat it. To do so, merely helps those who are not paying attention. If they realize that the teacher will repeat the question, they will not be over-anxious to get the sense of it the first time.

Above all things, never ask a question for the sake of showing the pupils that they do not know everything. It is not calculated to help them. It generally does considerable harm and very little good. Follow the old rule, "Suit the question to the intellectual ability of the class." Your work will be more efficient.

4. THE SOCIALIZED RECITATION

What It Means. All teachers no doubt have watched a group of children playing school. They have noticed too how deeply interested the little ones were in their work, and how one of their number acted as the teacher. Some striking incident like this doubtless has given rise to what is now known as the socialized recitation.

In the ordinary recitation, the teacher stands before the pupils, asks various questions, and calls upon the different children for the answer; but in the socialized recitation, the teacher occupies a place in the background and allows one or more pupils to conduct the recitation. The subject matter of the lesson is, of course, planned ahead

of time, and the pupils have clear ideas as to the best questions to ask the class. Any pupil has a right to ask for further explanation, and if nobody in the class is able to answer the question, the teacher is at hand to solve the difficulty.

In the ordinary recitation, the pupil as a rule loses interest just as soon as he has answered his question. He feels that he will not be called upon again. In the socialized recitation, however, the interest is sustained from the beginning to the end of the period. The novelty of the children's doing all the work seems to engross the attention of the pupils. The questions, moreover, are given from the pupils' standpoint. They are generally more simple and direct. They appeal more strongly.

The socialized recitation, moreover, makes the work less formal and more homelike. It brings the mental activity of the children into play. It gives rise to intense competition and rivalry. It encourages originality and gives ample opportunity for purposive thinking.

The socialized recitation also develops a sense of responsibility and a more even spirit among the pupils. It gives all an opportunity to show what they know. It gives them ample exercise in expressing their thoughts.

A Mistaken Notion. It is a mistake to think that the socialized recitation is intended to take the place of the regular work of the class. It has no such purpose. It aims to get all the pupils more deeply interested in the lesson. It helps to cultivate self-dependence. It enables the pupils to coöperate in performing a project or in

solving a problem. It strives to connect the work of education with the world in which we live.

While the teacher as a rule remains in the background during the socialized recitation, she is always present as a court of appeal. The pupils, in conducting the class, may go beyond their depth. They must always realize that she is there to rescue them. Better still, she is the judge, and the pupils are the jury. It oftentimes happens that the jury has to consult the judge on a question of law. So, too, the pupils will find it necessary at times to consult the teacher.

It Has Its Limits. It is neither practical nor profitable to use the socialized recitation for every lesson. Some subjects do not readily lend themselves to such a procedure. How shall we find this out? It may be safely said that if the socialized recitation does not serve as a stimulus for greater mental effort on the part of the pupils, it is not a profitable means of instruction.

The socialized recitation presupposes that the teacher is a good disciplinarian. Otherwise it is likely to have many shortcomings. The freedom allowed in this method of instruction oftentimes gives the unruly children a better opportunity to play their pranks and to disrupt the class. So that in some cases the last state is worse than the first.

Though there are drawbacks to this method of instruction, especially when the teacher is a poor disciplinarian or ill prepared for the lesson, it has undoubtedly many advantages over the ordinary recitation. It helps the

individual to do better work. It stimulates him to undertake problems and projects that he would otherwise never attempt. The pupil feels that he is an important factor in the work of the classroom. He realizes that the teacher places a certain amount of responsibility on his shoulders. He finds that his classmates are interested in what he has to say. This brings to him a certain amount of happiness and a tendency to renewed efforts and better results.

FOR FURTHER STUDY

1. Trace the various meanings that have been given to "recitation."
2. Give an account of the lesson unit as analyzed by Herbart.
3. What is the latest conception of the "method of recitation"?
4. Show that the assignment of the lesson is a real test of teaching ability.
5. How would you assign a lesson on "The Causes of the American Revolution"?
6. What do you consider an "educational question"?
7. Discuss the value of direct questions.
8. When is a question stimulating?
9. Why should all questions be previously prepared?
10. Explain the use of questions (1) as a test of knowledge, (2) as a means of developing subject matter, and (3) as a means of developing the independence of the pupils.
11. What is the purpose of leading questions?
12. What is the difference between the ordinary recitation and the socialized recitation?
13. What are the advantages and the disadvantages of the socialized recitation?

14. Do you think that the socialized recitation is not a concrete specific method but rather a point of view?

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XXXIII

SILENT READING

It Is Not Something New. In recent years, the subject of silent reading, or reading in silence, has been widely discussed in educational literature. Some authors have treated this matter as if it were something entirely new, while others have advocated that more time be given to it in the elementary schools.

For a long time, teachers of reading have been striving to produce "thought-getters" rather than "word-getters," and silent reading has been utilized to attain this most commendable end. Practically all teachers in the primary grade insist that their pupils read the sentence in silence before they give it orally. This silent reading helps the children to grasp the meaning of the sentence and to read it with expression. It unconsciously makes them think.

Then as the pupils make progress through the different grades of the grammar school a certain amount of silent reading is done, not only during the reading lesson, but during the geography, the history, and the Bible history periods. When a prose or poetical selection is to be mastered the teacher generally requires the pupils to read it over in silence to get the drift of the lesson and to be able to discuss it orally.

It Should Be Stressed. It is true that a certain amount of silent reading has been done in our schools of late years, but unfortunately there has not been enough of it. Reading in silence is a special means of focusing the attention of the pupils on the thought of the printed word rather than on the mechanics of reading. It is helpful in increasing the pupils' rate of reading. It is a preparation and an auxiliary for efficient study.

In reading, there are three main considerations: the speed of reading, the interpretation of what is read, and the oral expression of the printed symbols.

From numerous investigations, it has been determined that the rapid reader generally gets the thought of what he reads much better than the slow reader. The rapid reader takes in phrases, clauses, and whole sentences, while the slow reader takes a word at a time. There is, of course, such a thing as reading too fast and merely getting a confused notion of what is read. Fluency in reading is not always a guarantee that the pupil has assimilated the thought of what he has read. Neither is it safe to assume that the children understand what they have read. The teacher must test their comprehension of the contents.

According to the latest and best authorities, the maximum rate of reading in keeping with good interpretation is 300 words a minute for the high school student, 240 for an eighth-grade pupil, 216 for the seventh, 192 for the sixth, 168 for the fifth, 144 for the fourth, 126 for the third, 108 for the second, and 90 for the first.

A Weighty Consideration. Here is another consideration that carries weight. When a boy leaves school, he has but little use for oral reading. Practically all his time is devoted to reading in silence. Should not this be taken into account in the grammar grades? Should he not get more practice in silent reading than pupils get at present? Moreover, when he is called upon to study in high school, in college, or in the university, will he not have to do a great amount of silent reading? He surely will if he wishes to apply himself. Is it not very reasonable, then, that we should prepare the children for this important work in the primary and grammar grades?

From the first to the last grade of the elementary school, we should begin to inculcate the correct motor habits of reading. It is not enough to do so occasionally. It should be done daily, and it should be done with conviction. The children should be taught to deal with phrases, clauses, and sentences rather than with individual words. They should be made to realize that the most important part of reading is to get the thought from the printed words. They should be trained to think in mastering words, in phonetics, and in giving oral expression to their thoughts. In a word, everything that they do and say during the reading period should give them food for thought and should stimulate their mental activity.

In schools in which silent reading has been stressed, it is generally found that the children read with more expression than formerly, that they can better concentrate their mind on the text, that they have more ability to

grasp the thought of what is read, that they have more power to compare, to judge, and to evaluate the text, and that they have acquired a larger vocabulary.

FOR FURTHER STUDY

1. Is there any difference between "silent reading" and "reading in silence"?
2. Show that silent reading is most helpful in learning how to study.
3. Why should more time be devoted to silent reading?
4. Why can a child cover more ground in a textbook in silent reading than he can in oral reading?

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XXXIV

EDUCATIONAL MEASUREMENTS

Examinations Not a Test of Knowledge. A few years ago, we happened to give a final examination in arithmetic to the pupils of an eighth grade. Noticing that some of the children were in a rather excitable frame of mind, we advised them to try to keep cool while they were doing the problems. Notwithstanding our advice, one of the brightest pupils in the class must have lost her head completely, because she got the lowest mark in the examination.

When this pupil handed in her paper, we glanced over it quickly and saw that seven of the ten answers were incorrect. To say that we were surprised is putting it mildly. We told the girl to remain after the other pupils were dismissed. We then asked her to go to the blackboard to do a few problems, and strange to say she did every one of the ten examples correctly without any help whatsoever.

This incident and many others that could be cited prove beyond doubt that children do not always do justice to themselves in written examinations. In other words, these examinations are not always a fair test of the pupil's mental ability. They sometimes count too much in the matter of promotion.

Estimates Differ. After having marked all the arithmetic papers very carefully, we handed them over to another teacher, so that she might read and evaluate them. In a day or two, the papers came back, but the marks were different in practically every case. This set us thinking. We wondered if we had marked the papers too severely. In order to arrive at some definite conclusion, we handed the papers to the principal of the school and asked him as a favor to give a mark to each paper. Another surprise was in store for us. The principal gave lower marks than even we had given.

What was the consequence? We became dissatisfied with the results of final examinations. We saw that they were not always a fair test of the pupil's mental ability, and furthermore that no two teachers marked a set of papers in the same way.

Some weeks later, discussing these facts with another eighth grade teacher, we found that we were not alone in our opinion of written examinations. It appeared that many elementary teachers were seeking something more reliable.

More Accurate Measurements. For some years past, teachers and educators have been busily engaged in the work of formulating tests that will more accurately measure the mental ability of the pupils. At first, these tests were handled chiefly by educational experts, and the ordinary teacher was satisfied to read the different reports that appeared off and on in educational journals.

But nowadays when the value of these standard tests has been fully demonstrated, it behooves all teachers in our elementary and secondary schools to study and master the matter of educational measurements so as to be able to diagnose properly the pupil's ability as well as to understand his difficulties.

Still in Experimental Stage. It is very true that intelligence tests are still in the experimental stage. This, however, is no reason why we should not become acquainted with them. It is no reason why we should dismiss the subject as if it were of no importance to the ordinary teacher. The time is coming when educational measurements will be found in the curriculum of all our normal schools and teachers' colleges. Is it not now the great question of the hour at summer schools, teachers' conferences, etc.?

What has given rise to these educational measurements? We answer: (1) the unreliable character of the teacher's marks or measurements of the ordinary pupil's mental ability; (2) the need of something more reliable by which to measure the educational progress of school children.

Advantages Claimed. The exponents of educational measurements tell us that by using standardized tests we place the evaluation of the child's progress on an objective basis. At the same time, we do away with the personal preferences of the teacher for individual members of the class. But the question still remains, will not the teacher have an opportunity to show her per-

sonality in marking even the results of the standardized tests?

In addition to this advantage, the use of standardized tests is a great help in diagnosing correctly the weaknesses of the teacher's instruction. From this, it follows that the use of such tests oftentimes guides the teacher in making more efficient her class work. This, indeed, is undoubtedly a great advantage. Anything that helps to bring about more efficient teaching is a move in the right direction.

There are some who assert that the educational progress of the pupils is too complex and too subtle to be measured by any standard test, no matter how wonderful it is. There is considerable truth in this statement. If education be a matter of character formation, what standardized test can measure it accurately?

The standard tests are not perfect and they never will be perfect. Yet they are an improvement on the ordinary written examinations that took place when we went to school.

FOR FURTHER STUDY

1. What are the chief advantages of educational measurements?
2. What are the principal objections to educational measurements?
3. Do standard tests measure the achievement of the teacher as well as the progress of the pupils?
4. Do you think it is possible to measure the character of the pupils?

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